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Date: 3/16/99 Phone: 306-3227 Art Unit: 1654
98A3

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Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

please search the structure of claim 1.
please see attached
useful as an anti-oxidant

Thank
you Dilacrim

Point of Contact:
Alex Waclawiw
Technical Info. Specialist
CM1 12C14 Tel: 308-4491

rep 15

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Type of Search

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____ Structure
____ Bibliographic

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____ Dialog
____ APS
____ Geninfo
____ SDC
____ DARC/Questel
____ Other

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DEL HIS Y
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L1 STR
L2 (15121)SEA FILE=REGISTRY SSS FUL L1
L3 (11715)SEA FILE=REGISTRY ABB=ON L2 AND (MN OR CO OR CU OR FE OR V
OR
L4 STR
L5 8397 SEA FILE=REGISTRY SUB=L3 SSS FUL L4

FILE 'CAPLUS' ENTERED AT 13:55:54 ON 18 MAR 1999

L6 3270 S L5
L7 64010 S ANTIOXID?
L8 36 S L6 AND L7
E Malfroy Camine/AU
L9 17 S E3-5
E Doctrow S/AU
L10 23 S E4-7
L11 36 S L9 OR L10
L12 29 S L8 NOT L11
L13 7 S L8 AND L11

*→ all other references
→ senders references*

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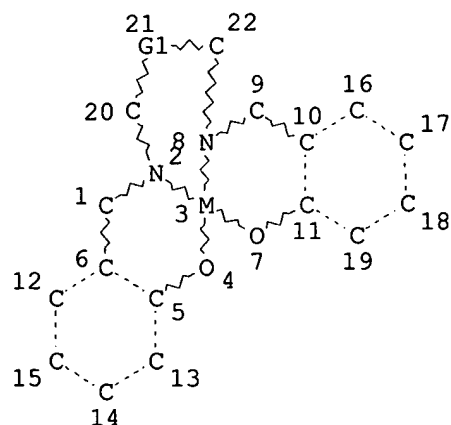
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L3 (      11715)SEA FILE=REGISTRY ABB=ON  L2 AND (MN OR CO OR CU OR FE OR V
OR
L4          STR
L5          8397 SEA FILE=REGISTRY SUB=L3 SSS FUL L4
  
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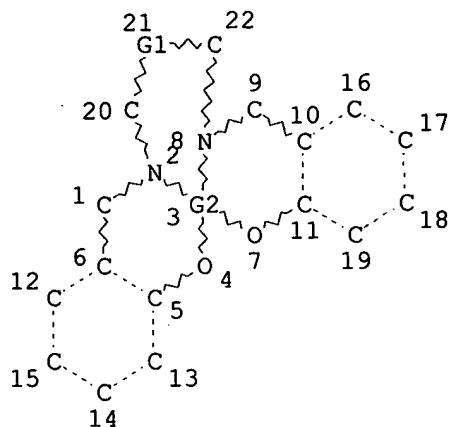


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

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L3 ( 11715)SEA FILE=REGISTRY ABB=ON L2 AND (MN OR CO OR CU OR FE OR V
OR
CR OR NI)/ELS
L4 STR
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DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 22
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100.0% PROCESSED 11715 ITERATIONS
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8397 ANSWERS

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FILE LAST UPDATED: 18 Mar 1999 (19990318/ED)
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FILE 'CAPLUS' ENTERED AT 13:55:54 ON 18 MAR 1999
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L7 64010 S ANTIOXID?
L8 36 S L6 AND L7
E Malfroy Camine/AU
L9 17 S E3-5
E Doctrow S/AU
L10 23 S E4-7
L11 36 S L9 OR L10
L12 29 S L8 NOT L11
L13 7 S L8 AND L11

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=> d .ca hitstr 112 1-29

L12 ANSWER 1 OF 29 CAPLUS COPYRIGHT 1999 ACS
AN 1998:176006 CAPLUS
DN 128:226221
TI Methods using manganese superoxide dismutase-deficient mouse for testing compounds for use as therapeutic **antioxidants**
IN Wallace, Douglas C.; Melov, Simon L.; Crapo, James D.; Day, Brian J.
PA Emory University, USA; Duke University
SO PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9810057 A1 19980312 WO 97-US15814 19970905
W: AU, CA, JP
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE AU 9742580 A1 19980326 AU 97-42580 19970905
PRAI US 96-24702 19960906
WO 97-US15814 19970905
AB Methods are described for the testing of compds. of potential usefulness as therapeutic **antioxidants** and/or as therapeutic free radical scavengers. The animal model for testing such compds. is the Sod2CJE homozygous manganese superoxide dismutase-deficient mouse. When pups of these mice are treated with certain **antioxidants**, they survive past about 7 days of age, and later develop characteristic histol. changes
and characteristic neurobehavioral disorders. Those treated mice can be further treated with test compds. which may or may not cross the blood brain barrier, and the life span and phys. and neurobehavioral

characteristics of those mice provide information about the potential utility of the test compd. as a therapeutic **antioxidant**. Phenotypes of the treated mice allow conclusions regarding targeted areas of the brain and thus, applications to particular disorders, e.g. Parkinsonism.

IT **53177-12-1**
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (manganese superoxide dismutase-deficient mouse for testing compds.
 for use as therapeutic **antioxidants**)

IC ICM C12N005-00
 ICS C12N015-00; A61K049-00

CC 1-1 (Pharmacology)
 Section cross-reference(s): 14, 78

ST superoxide dismutase deficient mouse **antioxidant** effectiveness; radical scavenger effectiveness MnSOD deficient mouse; Parkinsonism drug superoxide dismutase deficient mouse

IT Genes (animal)
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (apoptotic; manganese superoxide dismutase-deficient mouse for testing compds. for use as therapeutic **antioxidants**)

IT Convulsions
 (audiogenic; manganese superoxide dismutase-deficient mouse for testing compds. for use as therapeutic **antioxidants**)

IT Liver
 (lipids; manganese superoxide dismutase-deficient mouse for testing compds. for use as therapeutic **antioxidants**)

IT Hypolipemic agents
 (liver lipids; manganese superoxide dismutase-deficient mouse for testing compds. for use as therapeutic **antioxidants**)

IT **Antioxidants**
 Blood-brain barrier
 Brain injury
 Cardiomyopathy
 Cardioprotectants
 Drug screening
 Mitochondria
 Mouse
 Radical scavengers
 (manganese superoxide dismutase-deficient mouse for testing compds.
 for use as therapeutic **antioxidants**)

IT Behavior (animal)
 (neurobehavior; manganese superoxide dismutase-deficient mouse for testing compds. for use as therapeutic **antioxidants**)

IT Genes (animal)
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (sod2; manganese superoxide dismutase-deficient mouse for testing compds. for use as therapeutic **antioxidants**)

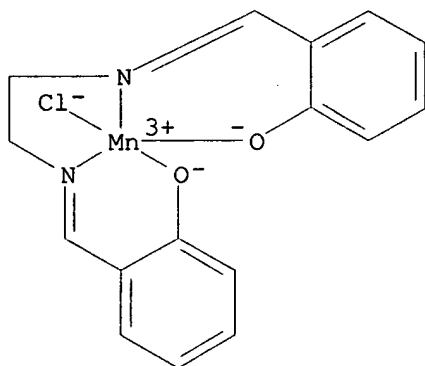
IT **53177-12-1** 73202-95-6
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (manganese superoxide dismutase-deficient mouse for testing compds.
 for use as therapeutic **antioxidants**)

IT 9054-89-1, Superoxide dismutase
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (manganese; manganese superoxide dismutase-deficient mouse for testing
 compds. for use as therapeutic **antioxidants**)

IT 11132-78-8, Manganese chloride 14609-54-2
 RL: RCT (Reactant)
 (reaction; manganese superoxide dismutase-deficient mouse for testing
 compds. for use as therapeutic **antioxidants**)

IT 53177-12-1
 RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (manganese superoxide dismutase-deficient mouse for testing compds.
 for use as therapeutic **antioxidants**)

RN 53177-12-1 CAPLUS
 CN Manganese, chloro[[2,2'-(1,2-ethanediylbis[(nitrilo-
 .kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-5-13)- (9CI)
 (CA INDEX NAME)



L12 ANSWER 2 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1997:189612 CAPLUS
 DN 127:579
 TI Vasodilatory effects of a salen-manganese complex with potent oxyradical
 scavenger activities
 AU Barandier, Christine; Boucher, Francois; Malfroy, Bernard; De Leiris,
 Joel
 CS Groupe Physiopathologie Cellulaire Cardiaque, Universite Joseph Fourier,
 Grenoble, F-38041, Fr.
 SO J. Vasc. Res. (1997), 34(1), 49-57
 CODEN: JVREE9; ISSN: 1018-1172
 PB Karger
 DT Journal
 LA English
 AB The effects of EUK-8, a salen-Mn complex with high superoxide dismutase
 and catalase activities, on rat aorta were investigated. EUK-8 protected
 the acetylcholine-induced relaxation of rat aortic rings from inhibition
 by superoxide anions and reduced H2O-induced relaxation. Moreover, EUK-8
 dose-dependently relaxed rat aorta precontracted with phenylephrine and
 decreased the vascular tone of noncontracted aortic rings. The relaxant
 effect of EUK-8 was potentiated by endothelium abrasion and/or

preincubation with N-nitro-L-arginine Me ester, an inhibitor of NO synthase. Indomethacin had no effect on the action of EUK-8, showing that

it was not dependent on prostacyclin synthesis. Methylene blue, an inhibitor of sol. guanylate cyclase, partly abolished relaxation induced by EUK-8. Incubation of rat aorta with EUK-8 induced an increase in vascular cAMP content. The lack of inhibition by dl-propranolol showed that adenylate cyclase activation by EUK-8 was not mediated through .beta.-adrenergic receptors. The inhibition of the effects of EUK-8 by tetraethylammonium and glibenclamide showed the implication of potassium channels in the intracellular cascade triggered by EUK-8. The vasorelaxant activity of EUK-8 was neither affected by xanthine oxidase inhibition nor by superoxide anion scavenging. Finally, the ligand for EUK-8 without its **antioxidant** activities because of the absence of manganese, conversely potentiated phenylephrine-induced contraction of aortic rings.

IT 53177-12-1, EUK-8

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vasodilatory effects of a salen-manganese complex with potent oxyradical scavenger activities)

CC 1-8 (Pharmacology)

IT 53177-12-1, EUK-8

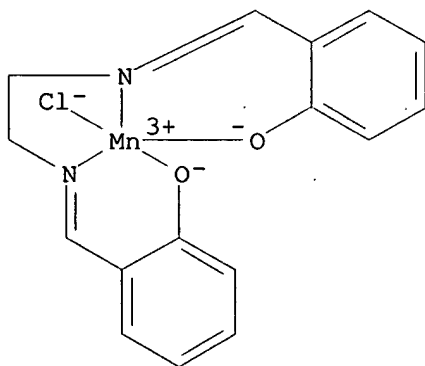
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vasodilatory effects of a salen-manganese complex with potent oxyradical scavenger activities)

IT 53177-12-1, EUK-8

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vasodilatory effects of a salen-manganese complex with potent oxyradical scavenger activities)

RN 53177-12-1 CAPLUS

CN Manganese, chloro[[2,2'-(1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-5-13)- (9CI)
(CA INDEX NAME)



TI EUK-134, a synthetic superoxide dismutase and catalase mimetic, protects
rat kidneys from ischemia-reperfusion-induced damage

AU Gianello, Pierre; Saliez, Alain; Bufkens, Xavier; Pettinger, Rene;
Misseleyn, Dominique; Hori, Seiji; Malfroy, Bernard

CS Medical School, University Louvain, Brussels, 1200, Belg.

SO Transplantation (1996), 62(11), 1664-1666
CODEN: TRPLAU; ISSN: 0041-1337

PB Williams & Wilkins

DT Journal

LA English

AB The effect of a new synthetic superoxide dismutase and catalase mimetic
was investigated on renal ischemia-reperfusion syndrome in rats.
Synthetic salen-manganese complexes have characteristics that might
facilitate their potential usefulness as therapeutic agents: (1) unlike
proteinaceous **antioxidant** enzymes, synthetic complexes, due to
their low mol. wt., have a better stability and bioavailability; (2) they
have a catalytic activity enhancing their efficiency over noncatalytic
reactive oxygen metabolite scavengers; and finally, (3) exhibiting
combined superoxide dismutase and catalase activity, they destroy both
superoxide anions and hydrogen peroxides, thereby enhancing their
protective effect on ischem. injured tissues. One such compd., EUK-134,
was tested in uninephrectomized rats that underwent a left renal artery
clamping. After a 75-min left renal artery clamping, a single i.v.
injection of EUK-134 at 0.2 mg/kg, just before unclamping, provided
significantly better renal function recovery during the week after the
ischemic insult compared with recovery of untreated animals. Two hours
after several periods of renal ischemia (30, 45, 60, and 75 min of left
renal artery clamping), EUK-134 given at a similar dose significantly
improved the glomerular filtration rate after an acute ischemia of 30 and
45 min, as assessed by EDTA 51Cr. Overall, these results show that
synthetic superoxide dismutase-catalase mimetics such as EUK-134 can
protect ischem. injured rat kidneys from ischemia-reperfusion syndrome
when administered just before reperfusion.

IT 186467-37-8, EUK 134
RL: BAC (Biological activity or effector, except adverse); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(EUK-134, synthetic superoxide dismutase and catalase mimetic,
protects
rat kidneys from ischemia-reperfusion-induced damage)

CC 1-8 (Pharmacology)

IT 186467-37-8, EUK 134
RL: BAC (Biological activity or effector, except adverse); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(EUK-134, synthetic superoxide dismutase and catalase mimetic,
protects
rat kidneys from ischemia-reperfusion-induced damage)

IT 186467-37-8, EUK 134
RL: BAC (Biological activity or effector, except adverse); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(EUK-134, synthetic superoxide dismutase and catalase mimetic,
protects
rat kidneys from ischemia-reperfusion-induced damage)

RN 186467-37-8 CAPLUS

L12 ANSWER 4 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1996:684323 CAPLUS

DN 126:17317

TI Free radicals in reperfusion-induced arrhythmias: study with EUK 8, a novel nonprotein catalytic **antioxidant**

AU Tanguy, Stephane; Boucher, Francois R.; Malfroy, Bernard; De Leiris, Joel G.

CS Physiopathologie Cellulaire Cardiaque, Universite Joseph Fourier, Grenoble, Fr.

SO Free Radical Biol. Med. (1996), 21(7), 945-954
CODEN: FRBMEH; ISSN: 0891-5849

PB Elsevier

DT Journal

LA English

AB Oxyradicals have been implicated as a possible cause of postischemic reperfusion arrhythmias (RA). However, the ability of enzymic scavengers such as superoxide dismutase and/or catalase to reduce RA remains controversial. The purpose of the present work was to det. whether a nonprotein catalytic **antioxidant**, EUK 8, may limit RA in isolated heart preps. The catalytic dismutation of H₂O₂ by EUK 8 was demonstrated using a Clark electrode. EUK 8's ability to scavenge oxyradicals was studied in vitro by ESR in presence of superoxide-anion generating system. ESR concn.-effect curves obtained led the authors to use EUK 8 at 50 .mu.mol/l in isolated heart preps. Isolated rat hearts were submitted to 10 min regional ischemia induced by left coronary artery ligation. Reperfusion was achieved by releasing the coronary ligation, and the incidence and duration of early ventricular arrhythmias were then investigated. In the treated-group, EUK 8 was added to the perfusion fluid (50 .mu.mol) 90 s before reperfusion. The results show that EUK 8 reduced the severity of RA as assessed by the arrhythmia score measurement. In conclusion, EUK 8 is able to limit RA in the authors' expt. model. This effect might be related to the catalytic **antioxidant** properties of this complex.

IT 53177-12-1, EUK 8
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)

CC 14-5 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1

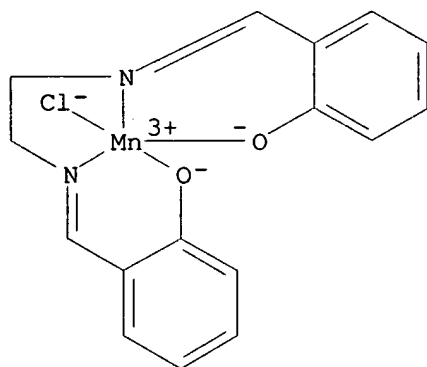
IT **Antioxidants**
Myocardial ischemia
Oxidative stress (biological)
(EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)

IT Reactive oxygen species
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)

IT Reperfusion
(of ischemic heart; EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)

IT Ventricular arrhythmia
(reperfusion-induced; EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's

- antioxidant** properties)
- IT 7722-84-1, Hydrogen peroxide, biological studies 7782-44-7D, Oxygen, radicals 11062-77-4, Superoxide
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)
- IT 9001-05-2, Catalase
 RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
 (EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)
- IT 53177-12-1, EUK 8
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)
- IT 53177-12-1, EUK 8
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (EUK 8, a nonprotein catalytic **antioxidant**, limits reperfusion arrhythmias, which may be related to EUK 8's **antioxidant** properties)
- RN 53177-12-1 CAPLUS
- CN Manganese, chloro[[2,2'-(1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-5-13)- (9CI)
 (CA INDEX NAME)



- L12 ANSWER 5 OF 29 CAPLUS COPYRIGHT 1999 ACS
- AN 1996:316370 CAPLUS
- DN 125:51912
- TI **Antioxidative** activity of biologically active compounds:
 Measurement by Cypridina chemiluminescence method
- AU Suzuki, N.; Mashiko, S.; Hamada, M.; Nomoto, T.; Hasegaga, M.; Yoda, B.
- CS National University Fisheries, Shimonoseki, 759-65, Japan
- SO Biolumin. Chemilumin., Proc. Int. Symp., 8th (1994), 219-222. Editor(s):
 Campbell, Andrew Keith; Kricka, Larry J.; Stanley, Philip E. Publisher:
 Wiley, Chichester, UK.

CODEN: 62UZAR

DT Conference

LA English

AB The highly sensitive Cypridina chemiluminescence method previously developed by the authors was used to det. the **antioxidative** activity of various peptides and salcomine derivs. Proteins from marine life showed 1-2 orders larger reaction rate consts. than did those from land animals and plants. Hydrolyzates of the proteins from land animals showed larger consts. than did the unhydrolyzed proteins. The salcomine derivs. were also strong **antioxidants**.

IT 14167-18-1, Salcomine 14167-18-1D, Salcomine, derivs.
14167-20-5 60306-16-3
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(**antioxidative** activity of biol. active compds.)

CC 6-7 (General Biochemistry)

ST **antioxidant** protein salcomine deriv

IT Polydactylus sexfilis
(actin and actomyosin; **antioxidative** activity of biol. active compds.)

IT **Antioxidants**
(**antioxidative** activity of biol. active compds.)

IT Protein hydrolyzates
Caseins, biological studies
Peptides, biological studies
Proteins, biological studies
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(**antioxidative** activity of biol. active compds.)

IT Euthynnus pelamis
(collagen and gelatin; **antioxidative** activity of biol. active compds.)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(egg white K; **antioxidative** activity of biol. active compds.)

IT Sardine
(myofibril; **antioxidative** activity of biol. active compds.)

IT Soybean
(peptides; **antioxidative** activity of biol. active compds.)

IT Myosins
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(red horsehead; **antioxidative** activity of biol. active compds.)

IT Collagens, biological studies
Gelatins, biological studies
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(skipjack tuna; **antioxidative** activity of biol. active compds.)

IT Actins
Actomyosins
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(threadfin bream; **antioxidative** activity of biol. active compds.)

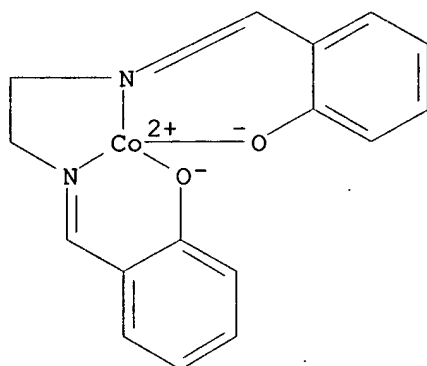
IT Gelatins, biological studies
 RL: BAC (Biological activity or effector, except adverse); BIOL
 (Biological study)
 (hydrolyzates, skipjack tuna; **antioxidative** activity of biol.
 active compds.)

IT Organelle
 (myofibril, sardine; **antioxidative** activity of biol. active
 compds.)

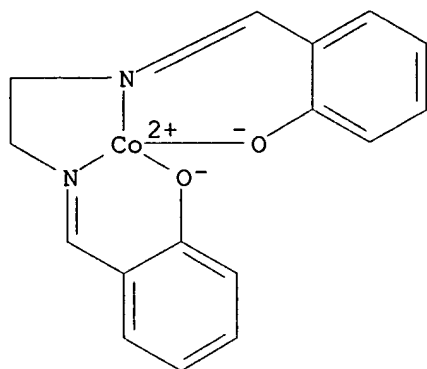
IT 14167-18-1, Salcomine 14167-18-1D, Salcomine, derivs.
 14167-20-5 41139-17-7 60306-16-3
 RL: BAC (Biological activity or effector, except adverse); BIOL
 (Biological study)
 (**antioxidative** activity of biol. active compds.)

IT 14167-18-1, Salcomine 14167-18-1D, Salcomine, derivs.
 14167-20-5 60306-16-3
 RL: BAC (Biological activity or effector, except adverse); BIOL
 (Biological study)
 (**antioxidative** activity of biol. active compds.)

RN 14167-18-1 CAPLUS
 CN Cobalt,
 [[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)-(9CI) (CA INDEX NAME)



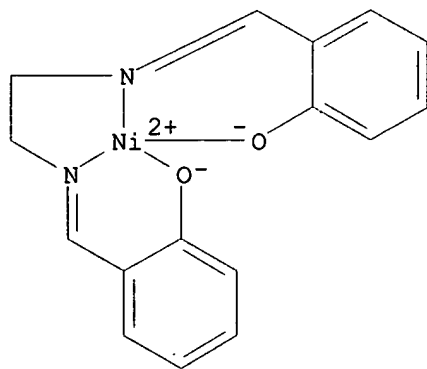
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 [[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)-(9CI) (CA INDEX NAME)



RN 14167-20-5 CAPLUS

CN Nickel,

[[2,2'-[1,2-ethanedithiolate]bis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

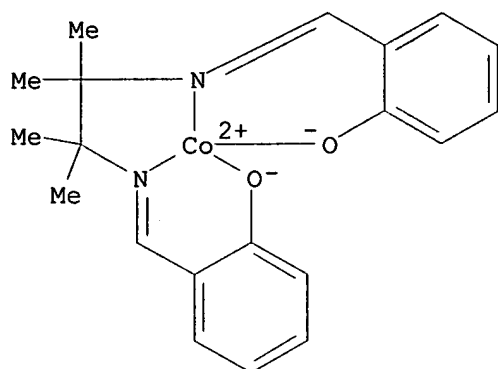


RN 60306-16-3 CAPLUS

CN Cobalt, [[2,2'-[(1,1,2,2-tetramethyl-1,2-ethanedithiolate]bis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-4-2)- (9CI)

(CA

INDEX NAME)



L12 ANSWER 6 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1996:180742 CAPLUS
 DN 124:279072
 TI .beta.-Amyloid toxicity in organotypic hippocampal cultures: protection
 by
 EUK-8, a synthetic catalytic free radical scavenger
 AU Bruce, Annadora J.; Malfroy, Bernard; Baudry, Michel
 CS Neurosci. Program, Univ. Southern California, Los Angeles, CA,
 90089-2520,
 USA
 SO Proc. Natl. Acad. Sci. U. S. A. (1996), 93(6), 2312-16
 CODEN: PNASA6; ISSN: 0027-8424
 DT Journal
 LA English
 AB Oxygen free radicals have been proposed to mediate amyloid peptide
 (.beta.AP)-induced neurotoxicity. To test this hypothesis, we evaluated
 the effect of EUK-8, a synthetic catalytic superoxide and hydrogen
 peroxide scavenger, on neuronal injury produced by .beta.AP in
 organotypic
 hippocampal slice cultures. Cultures of equiv. postnatal day 35 (defined
 as mature) and 14 (defined as immature) were exposed to various concns.
 of
 .beta.AP (1-42 or 1-40) in the absence or presence of 25 .mu.M EUK-8 for
 up to 72 h. Neuronal injury was assessed by lactate dehydrogenase
 release
 and semiquant. anal. of propidium iodide uptake at various times after
 the
 initiation of .beta.AP exposure. Free radical prodn. was inferred from
 the relative increase in dichlorofluorescein fluorescence, and the degree
 of lipid peroxidn. was detd. by assaying thiobarbituric acid-reactive
 substances. Treatment of mature cultures with .beta.AP (50-250 .mu.g/mL)
 in serum-free conditions resulted in a reproducible pattern of damage,
 causing a time-dependent increase in neuronal injury accompanied with
 formation of reactive oxygen species. However, immature cultures were
 entirely resistant to .beta.AP-induced neurotoxicity and also
 demonstrated
 no dichlorofluorescein fluorescence or increased lipid peroxidn. after
 .beta.AP treatment. Moreover, mature slices exposed to .beta.AP in the
 presence of 25 .mu.M EUK-8 were significantly protected from
 .beta.AP-induced neurotoxicity. EUK-8 also completely blocked

.beta.AP-induced free radical accumulation and lipid peroxidn. These results not only support a role for oxygen free radicals in .beta.AP toxicity but also highlight the therapeutic potential of synthetic radical

scavengers in Alzheimer disease.

IT 53177-12-1, Euk-8

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(.beta.-amyloid toxicity in organotypic hippocampal cultures inhibition

by EUK-8, a synthetic catalytic free radical scavenger)

CC 1-12 (Pharmacology)

Section cross-reference(s): 14

ST **antioxidant** EUK8 beta amyloid neurotoxicity hippocampus

IT **Antioxidants**

Nerve

(.beta.-amyloid toxicity in organotypic hippocampal cultures inhibition

by EUK-8, a synthetic catalytic free radical scavenger)

IT 53177-12-1, Euk-8

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(.beta.-amyloid toxicity in organotypic hippocampal cultures inhibition

by EUK-8, a synthetic catalytic free radical scavenger)

IT 53177-12-1, Euk-8

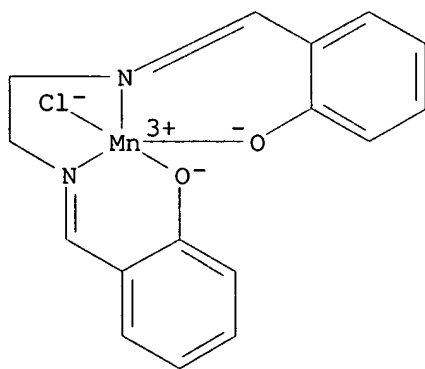
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(.beta.-amyloid toxicity in organotypic hippocampal cultures inhibition

by EUK-8, a synthetic catalytic free radical scavenger)

RN 53177-12-1 CAPLUS

CN Manganese, chloro[[2,2'-(1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-5-13)-(9CI)
(CA INDEX NAME)



L12 ANSWER 7 OF 29 CAPLUS COPYRIGHT 1999 ACS

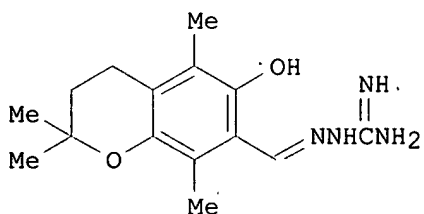
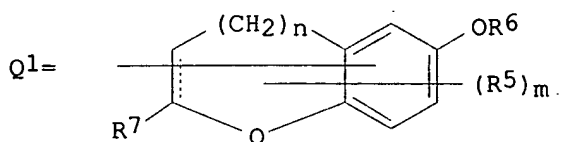
AN 1995:994554 CAPLUS

DN 124:55795

TI Preparation and formulation of chromanylideneaminoguanidines and analogs

as Maillard reaction-inhibiting **antioxidants**
 IN Ohuchida, Shuichi; Hasegawa, Tomoyuki; Kishimoto, Kazuo
 PA Ono Pharmaceutical Co., Ltd., Japan
 SO PCT Int. Appl., 90 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9523796 | A1 | 19950908 | WO 95-JP294 | 19950227 |
| | W: CA, CN, JP, KR, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| PRAI | JP 94-55223 | | 19940301 | | |
| OS | MARPAT 124:55795 | | | | |
| GI | | | | | |



II

AB The title compds. R1CR2(:N)NHC(:NH)NHR3 (I) [R1 represents R4A (A is a single bond, alkylene or phenylalkylene; and R4 is Q1); R2 represents hydrogen, alkyl, Ph, phenylalkyl, etc.; or R1 and R2 together with the carbon atom to which they are bonded represent cycloalkyl fused with R4; and R3 represents hydrogen, alkyl or acyl; provided when A represents phenylalkylene, the Ph is bonded to the carbon atom to which R2 is bonded;
 R5 = H, alkyl; R6 = H, alkyl, acyl; R7 = H, alkyl, etc.; m = 1 - 9; n = 0 - 2] are prepd. I are useful in the treatment and prevention of complications of diabetes and aging. The title compd. II was prepd. in a multistep process starting with 2,5-dimethylbenzoquinone. II in vitro showed IC50 of 7.3 .mu.M against lipid peroxidn.
 IT **14167-18-1**, Salcomine
 RL: CAT (Catalyst use); USES (Uses)
 (prepn. of chromanylideneaminoguanidines and analogs as Maillard reaction-inhibiting **antioxidants**)
 IC ICM C07D307-79
 ICS C07D311-72; C07D405-06
 ICA A61K031-34; A61K031-35; A61K031-44
 CC 27-14 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 1, 63
 ST chromanylideneaminoguanidine prepn Maillard reaction inhibitor

antioxidant; diabetes complication treatment
chromanylideneaminoguanidine prepn; aging treatment
chromanylideneaminoguanidine prepn

IT **Antioxidants**
Maillard reaction
(prepn. of chromanylideneaminoguanidines and analogs as Maillard
reaction-inhibiting **antioxidants**)

IT 171967-93-4P 171967-94-5P 171967-95-6P 171967-96-7P 171967-97-8P
171967-98-9P 171967-99-0P 171968-00-6P 171968-01-7P 171968-02-8P
171968-03-9P 171968-04-0P 171968-05-1P 171968-06-2P 171968-07-3P
171968-08-4P 171968-09-5P 171968-10-8P 171968-11-9P 171968-12-0P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
(prepn. of chromanylideneaminoguanidines and analogs as Maillard
reaction-inhibiting **antioxidants**)

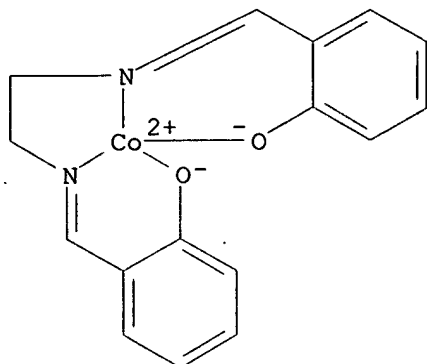
IT **14167-18-1**, Salcomine
RL: CAT (Catalyst use); USES (Uses)
(prepn. of chromanylideneaminoguanidines and analogs as Maillard
reaction-inhibiting **antioxidants**)

IT 74-88-4, Methyl iodide, reactions 95-87-4, 2,5-Dimethylphenol
107-30-2, Chloromethyl methyl ether 108-24-7, Acetic anhydride
108-30-5, Succinic anhydride, reactions 124-40-3, Dimethylamine,
reactions 137-18-8, 2,5-Dimethylbenzoquinone 150-78-7,
1,4-Dimethoxybenzene 526-86-3, 2,3-Dimethylbenzoquinone 527-61-7,
3,5-Dimethylbenzoquinone 556-82-1, 3-Methyl-2-buten-1-ol 563-47-3,
3-Chloro-2-methylpropene 867-13-0, Ethyl diethylphosphonoacetate
1253-46-9, (4-Methoxycarbonylbenzyl)triphenylphosphonium bromide
1937-19-5, Aminoguanidine hydrochloride 2605-67-6, Methyl
(triphenylphosphoranylidene)acetate 3282-30-2, Pivaloyl chloride
4885-02-3, .alpha.,.alpha.-Dichloromethyl methyl ether 171968-46-0
RL: RCT (Reactant)
(prepn. of chromanylideneaminoguanidines and analogs as Maillard
reaction-inhibiting **antioxidants**)

IT 615-90-7P 1015-55-0P 1077-69-6P 1083-11-0P 1084-74-8P
6133-18-2P
19206-87-2P 26172-17-8P 60404-99-1P 74785-10-7P 78707-88-7P
149467-89-0P 162963-37-3P 162963-39-5P 162963-41-9P 170728-04-8P
171968-13-1P 171968-14-2P 171968-15-3P 171968-16-4P 171968-17-5P
171968-18-6P 171968-19-7P 171968-20-0P 171968-21-1P 171968-22-2P
171968-23-3P 171968-24-4P 171968-25-5P 171968-26-6P 171968-27-7P
171968-28-8P 171968-29-9P 171968-30-2P 171968-31-3P 171968-32-4P
171968-33-5P 171968-34-6P 171968-35-7P 171968-36-8P 171968-37-9P
171968-38-0P 171968-39-1P 171968-40-4P 171968-41-5P 171968-42-6P
171968-43-7P 171968-44-8P 171968-45-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of chromanylideneaminoguanidines and analogs as Maillard
reaction-inhibiting **antioxidants**)

IT **14167-18-1**, Salcomine
RL: CAT (Catalyst use); USES (Uses)
(prepn. of chromanylideneaminoguanidines and analogs as Maillard
reaction-inhibiting **antioxidants**)

RN 14167-18-1 CAPLUS
CN Cobalt,
[[2,2'-(1,2-ethanediyldis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
lato-.kappa.O]](2-)]-, (SP-4-2)-(9CI) (CA INDEX NAME)



L12 ANSWER 8 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1995:708425 CAPLUS

DN 123:85859

TI Method for improving the stability of dyeings on hydrophobic fibers, its use on polyamide and polyester fibers and treated textiles from

IN Schlenker, Wolfgang; Strahm, Ulrich; Fuso, Francesco

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|----------|
| PI | DE 4429470 | A1 | 19950302 | DE 94-4429470 | 19940819 |
| PRAI | CH 93-2500 | | 19930823 | | |
| OS | MARPAT 123:85859 | | | | |

AB Title method comprises treating the dyed textile with a fiber stabilizer, e.g., **antioxidants** or light stabilizers, in supercrit. CO₂. A striped polyester textile was treated with 2,4-diphenyl-6-(2-hydroxy-4-methoxyphenyl)-1,3,5-triazine (I) in supercrit. CO₂ in an autoclave at 130.degree. and 250 bar for 30 min to give 75% exhaustion of I.

IT **14167-15-8**

RL: TEM (Technical or engineered material use); USES (Uses)

(light stabilizer; in improving the stability of dyeings on hydrophobic fibers)

IC ICM D06P005-04

ICA D06P005-06; D06P005-10

CC 40-6 (Textiles and Fibers)

ST light stabilizer supercrit carbon dioxide textile; dyeing stability supercrit carbon dioxide; **antioxidant** supercrit carbon dioxide textile dyeing; polyester fiber dyeing stability; polyamide fiber dyeing stability

IT **Antioxidants**

Light stabilizers

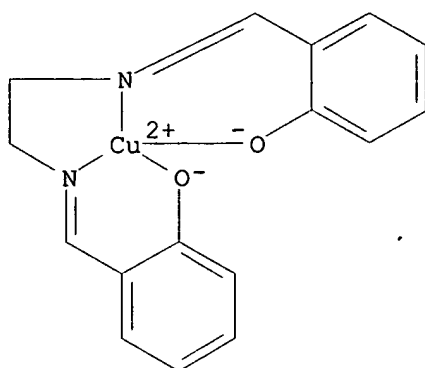
(in improving the stability of dyeings on hydrophobic fibers)

IT **14167-15-8** 52829-07-9 106556-36-9

RL: TEM (Technical or engineered material use); USES (Uses)

(light stabilizer; in improving the stability of dyeings on hydrophobic fibers)

fibers)
 IT 14167-15-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (light stabilizer; in improving the stability of dyeings on
 hydrophobic
 fibers)
 RN 14167-15-8 CAPLUS
 CN Copper,
 [[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 9 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1995:209409 CAPLUS
 DN 122:46423
 TI Preparation and characterization of Mn-salophen complex with superoxide
 scavenging activity
 AU Liu, Zheng-Xian; Robinson, Gina B.; Gregory, Eugene M.
 CS Department of Biochemistry and Anaerobic Microbiology, Virginia
 Polytechnic Institute, VA, 24061-0308, USA
 SO Arch. Biochem. Biophys. (1994), 315(1), 74-81
 CODEN: ABBIA4; ISSN: 0003-9861
 DT Journal
 LA English
 AB Mn(III)-salophen complex with superoxide scavenging activity was prepd.
 from manganese(III) acetate dihydrate and salophen in ethanol. Visible
 absorption spectrum of the red-brown complex exhibits a shoulder at 430
 nm
 which was absent with either salophen or manganic acetate alone. Titrn.
 of salophen with manganese(III) is consistent with a 1:1 Mn to salophen
 stoichiometry of the complex based on changes in the absorbance at 500 nm
 or of superoxide scavenging activity. The superoxide dismutase
 (SOD)-like
 activity of the complex in the xanthine-xanthine oxidase/cytochrome c
 assay was 1450 units/mg salophen. The SOD activity of the complex was
 suppressed 50% in the presence of EDTA (1 mM), but was not altered in the
 presence of bovine serum albumin (1 mg/mL) or crude protein ext. of
 Escherichia coli QC779 sodA-sodB- (1 mg/mL). E. coli QC779 sodA-sodB-
 grew scantily after an 8-h lag phase in aerobic M63 glucose minimal
 medium. The aerobic growth of the E. coli SOD double mutant in glucose
 minimal medium was greatly enhanced in the presence of 5 or 10 .mu.M

Mn-salophen complex compared to that of control after 24 h incubation. Mn-desferal green complex (10 μ M) and pink complex (5 μ M) also increased growth rate of E. coli QC779 sodA-sodB- but to a lesser extent than Mn-salophen complex. However, the growth was completely inhibited by 50 μ M Mn-salophen complex, 100 μ M Mn-desferal green complex, or 10 μ M Mn-desferal pink complex.

IT **100183-26-4P**
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. and characterization of Mn-salophen complex with superoxide scavenging activity)

CC 1-12 (Pharmacology)

IT **Antioxidants**
 (prepn. and characterization of Mn-salophen complex with superoxide scavenging activity)

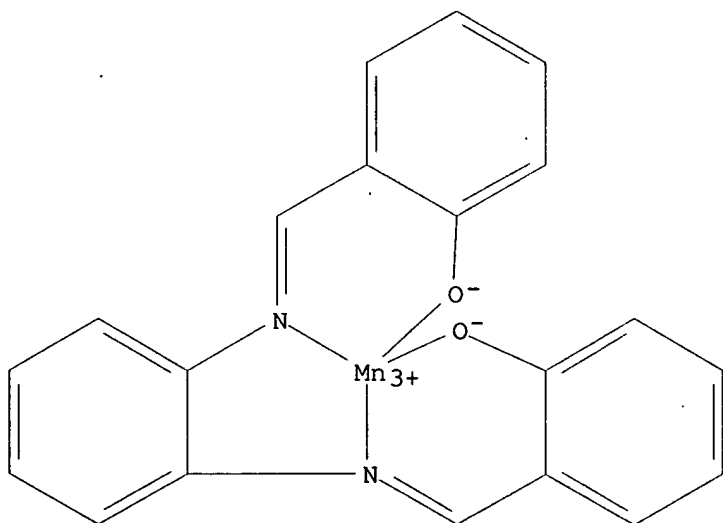
IT **100183-26-4P**
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. and characterization of Mn-salophen complex with superoxide scavenging activity)

IT **100183-26-4P**
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. and characterization of Mn-salophen complex with superoxide scavenging activity)

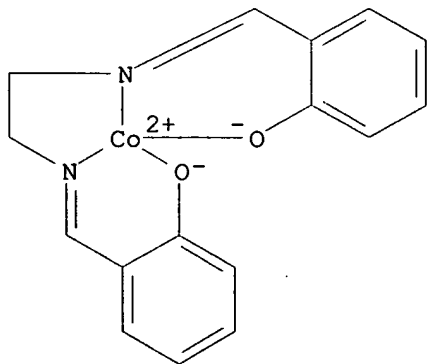
RN 100183-26-4 CAPLUS

CN Manganese(1+), [[2,2'-[1,2-phenylenebis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-4-2)- (9CI)

(CA INDEX NAME)



DN 122:23297
 TI **Antioxidant** activity of chlorophyll derivatives: measurement by Cypridina chemiluminescence method.
 AU Suzuki, N.; Nakamura, K.; Namiki, M.; Nomoto, T.; Yoda, B.; Saeki, A.
 CS Shimonoseki Univ. Fisheries, Yoshimi, 759-65, Japan
 SO Chem. Funct. Dyes, Proc. Int. Symp., 2nd (1993), Meeting Date 1992, 130-5.
 Editor(s): Yoshida, Z.; Shiota, Y. Publisher: Mita Press, Tokyo, Japan.
 CODEN: 59TQAX
 DT Conference
 LA English
 AB Several metallochlorophyllins and chlorins showed **antioxidant** activity to superoxide in aq. soln., as detd. by the Cypridina chemiluminescence method (Suzuki, N., et al., 1991). The compds. are potential agents for oxidative stress relief in cancer patients.
 IT **14167-18-1**, Salcomin
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**antioxidant** activity of chlorophyll derivs. to superoxide)
 CC 1-6 (Pharmacology)
 ST **antioxidant** chlorophyll deriv oxidative stress cancer
 IT **Antioxidants**
 (**antioxidant** activity of chlorophyll derivs. to superoxide)
 IT Neoplasm inhibitors
 (chlorophyll deriv. **antioxidants** for oxidative stress relief)
 IT 11006-34-1 **14167-18-1**, Salcomin 69138-22-3 72984-36-2
 100111-78-2 152695-46-0 159602-67-2 159602-68-3 159602-69-4
 159602-70-7
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**antioxidant** activity of chlorophyll derivs. to superoxide)
 IT **14167-18-1**, Salcomin
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**antioxidant** activity of chlorophyll derivs. to superoxide)
 RN 14167-18-1 CAPLUS
 CN Cobalt,
 [[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 11 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1994:511398 CAPLUS

DN 121:111398

TI Polyolefin stabilization against UV light

IN Walters, John Phillip

PA Phillips Petroleum Co., USA

SO Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

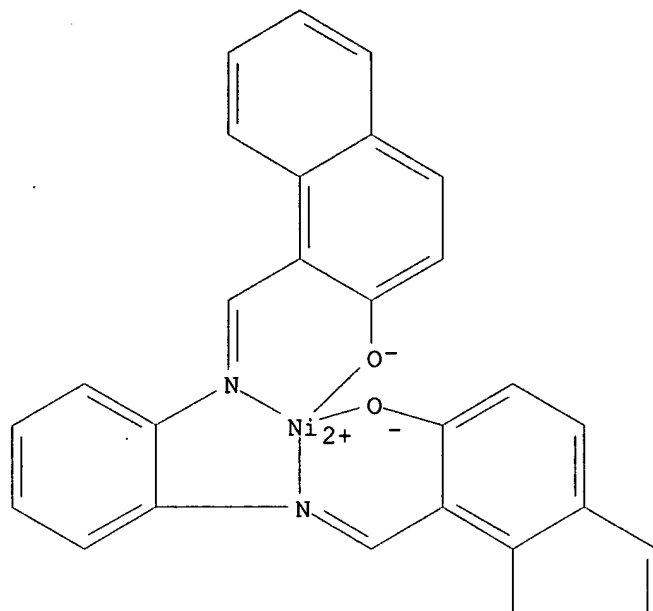
DT Patent

LA English

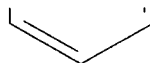
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 567117 | A1 | 19931027 | EP 93-106550 | 19930422 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| | US 5310771 | A | 19940510 | US 92-872863 | 19920423 |
| | JP 06016875 | A2 | 19940125 | JP 93-96190 | 19930422 |
| PRAI | US 92-872863 | | 19920423 | | |
| OS | MARPAT 121:111398 | | | | |
| AB | Polyolefins, esp. pigmented fibers, are stabilized against UV light by incorporation of a hindered amine, a metal phosphonate, and optionally, a phenolic antioxidant and an org. phosphite. Thus, polypropylene fibers contg. C.I. Pigment Blue 15:1, Irgastab 2002 (I, a Ni phosphonate), and GR-3150 [2,4,6-tris[N-cyclohexyl-N-[2-(3,3,5,5-tetramethylpiperazinonyl)ethyl]]-s-triazine] exhibited significantly less degrdn. in fadometer at 89.degree. and relative humidity 50% than similar fibers not contg. I. | | | | |
| IT | 20437-10-9 , C.I. Pigment Orange 65 | | | | |
| | RL: USES (Uses) (polypropylene fibers pigmented by, light stabilizers for, hindered amine-metal phosphonate mixts. as) | | | | |
| IC | ICM C08L023-10 ICS C08K005-00 | | | | |
| ICI | C08K005-00, C08K005-3462, C08K005-3435, C08K005-3492, C08K005-5333, C08K005-5393 | | | | |
| CC | 40-3 (Textiles and Fibers) Section cross-reference(s): 37 | | | | |
| IT | 81-33-4, C.I. Pigment Violet 29 147-14-8, C.I. Pigment Blue 15:1 980-26-7, C.I. Pigment Red 122 1047-16-1, C.I. Pigment Violet 19 1309-37-1, C.I. Pigment Red 101, uses 1328-53-6, C.I. Pigment Green 7 1344-37-2, C.I. Pigment Yellow 34 5280-78-4, C.I. Pigment Red 144 5521-31-3, C.I. Pigment Red 179 5590-18-1, C.I. Pigment Yellow 110 6358-30-1, C.I. Pigment Violet 23 12656-85-8, C.I. Pigment Red 104 13463-67-7, C.I. Pigment White 6, uses 20437-10-9 , C.I. Pigment Orange 65 RL: USES (Uses) (polypropylene fibers pigmented by, light stabilizers for, hindered amine-metal phosphonate mixts. as) | | | | |
| IT | 20437-10-9 , C.I. Pigment Orange 65 RL: USES (Uses) (polypropylene fibers pigmented by, light stabilizers for, hindered amine-metal phosphonate mixts. as) | | | | |
| RN | 20437-10-9 CAPLUS | | | | |
| CN | Nickel, [[1,1'-[1,2-phenylenebis[(nitrilo-.kappa.N)methylidyne]]bis[2-naphthalenolato-.kappa.O]](2)]-, (SP-4-2)- (9CI) (CA INDEX NAME) | | | | |

PAGE 1-A



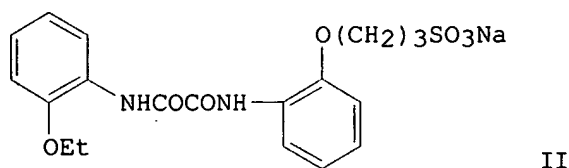
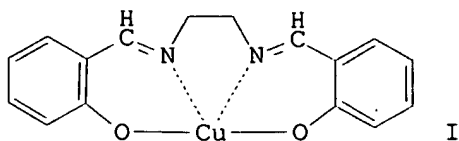
PAGE 2-A



L12 ANSWER 12 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1993:126450 CAPLUS
 DN 118:126450
 TI Stabilization of polyamide fibers against heat and light by copper
 complex
 compounds and oxalic acid diarylamides
 IN Kaschig, Juergen; Reinert, Gerhard
 PA Ciba-Geigy A.-G., Switz.
 SO Eur. Pat. Appl., 30 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | EP 511166 | A1 | 19921028 | EP 92-810286 | 19920416 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, PT, SE | | | | |
| | US 5338319 | A | 19940816 | US 92-870650 | 19920420 |
| | CA 2067059 | AA | 19921027 | CA 92-2067059 | 19920424 |

| | | | | |
|----------------------|----|----------|--------------|----------|
| BR 9201524 | A | 19921201 | BR 92-1524 | 19920424 |
| JP 05186969 | A2 | 19930727 | JP 92-105104 | 19920424 |
| PRAI CH 91-1252 | | 19910426 | | |
| OS MARPAT 118:126450 | | | | |
| GI | | | | |



AB Polyamide fibers are stabilized against heat and light by sulfo group-contg. derivs. of PhNHCOCONHPh and Cu complexes of o-azomethine phenol derivs. showing good affinity for polyamides. Polyamide fibers dyed with a mixt. of Cr complex azo dyes in the presence of I and II showed better lightfastness than similar fibers contg. no I.

IT **14167-15-8P**
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as **antioxidant** for polyamide fibers)

IC ICM D06P001-649
 ICS D06P003-24; D06P001-642

CC 40-9 (Textiles and Fibers)
 Section cross-reference(s): 25

ST polyamide fiber heat light stabilizer; copper complex **antioxidant** polyamide fiber; amide **antioxidant** polyamide fiber; sulfonate oxamide deriv stabilizer polyamide

IT Amides, preparation
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. and **antioxidant** activity in polyamide fibers)

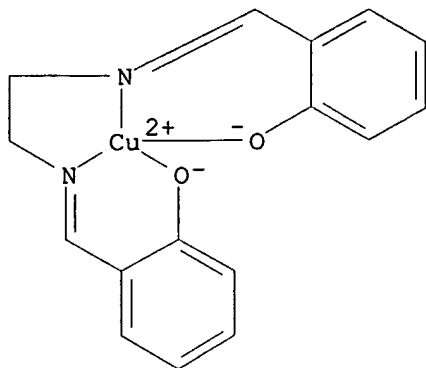
IT 145233-75-6P 145233-77-8P 145233-78-9P 145233-79-0P 145233-80-3P
 145233-81-4P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. and **antioxidant** activity in polyamide fibers)

IT **14167-15-8P** 145233-82-5P 145233-83-6P 145233-84-7P
 145233-85-8P 145233-86-9P 145233-87-0P 145233-88-1P 145233-89-2P
 145233-90-5P 145233-91-6P 145233-92-7P 145233-93-8P 145233-94-9P
 145233-95-0P 145233-96-1P 145233-97-2P 145233-98-3P 145233-99-4P
 145234-00-0P 145234-01-1P 145234-02-2P 145234-03-3P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as **antioxidant** for polyamide fibers)

IT **14167-15-8P**
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as **antioxidant** for polyamide fibers)

RN 14167-15-8 CAPLUS

CN Copper,
 [[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 13 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1990:531727 CAPLUS

DN 113:131727

TI Preparation of biphenyldiols as materials for resins

IN Kitamura, Taku; Kurokawa, Noriko

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 01283241 | A2 | 19891114 | JP 88-111553 | 19880510 |

OS MARPAT 113:131727

AB Biphenyldiols, also useful as **antioxidants** (no data) and materials for drugs and agrochems., are prepd. by liq.-phase oxidn. of molten phenols in presence of metal complex catalysts and successive heating without O. Thus, 103.0 g molten 2,6-di-tert-butylphenol (I) was heated with Mn phthalocyanine at 160.degree. under 140 mL/min air for 8 h to give a reaction mixt. contg. 3,3',5,5'-tetra-tert-butyl-4,4'-dihydroxybiphenyl (II) 25.6, 3,3',5,5'-tetra-tert-butyl-4,4'-diphenoquinone (III) 9.9, and I 62.3%, which was treated continuously without O at 180.degree. for 6 h to give a mixt. contg. II 45.0, III 0.2, and I 52.6%, from which 40.1 g cryst. II was isolated.

IT 14167-18-1 23755-16-0

RL: CAT (Catalyst use); USES (Uses)
 (catalyst, for liq.-phase oxidative coupling of phenols)

IC ICM C07C039-15

ICS B01J031-22; C07C037-11

ICA C07B061-00

CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 1, 35, 41

ST biphenyldiol prepn resin material; **antioxidant** biphenyldiol
 prepn; drug intermediate biphenyldiol prepn; dye intermediate
 biphenyldiol

prepn; phenol liq phase oxidative coupling; disproportionation phenol
diphenoquinone

IT **Antioxidants**

(biphenyldiols)

IT 132-16-1, Iron phthalocyanine 13930-88-6 **14167-18-1**
14325-24-7, Manganese phthalocyanine 15665-27-7 17632-19-8
23755-16-0

RL: CAT (Catalyst use); USES (Uses)

(catalyst, for liq.-phase oxidative coupling of phenols)

IT **14167-18-1 23755-16-0**

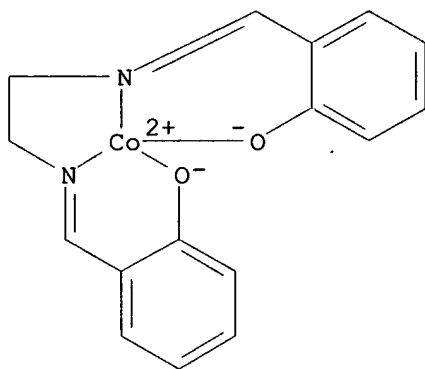
RL: CAT (Catalyst use); USES (Uses)

(catalyst, for liq.-phase oxidative coupling of phenols)

RN 14167-18-1 CAPLUS

CN Cobalt,

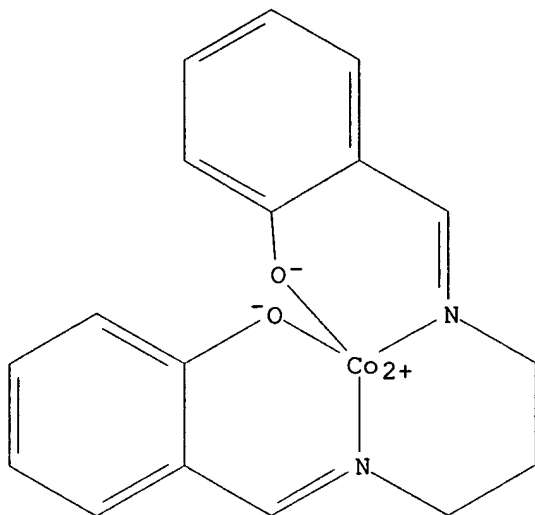
[[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 23755-16-0 CAPLUS

CN Cobalt,

[[2,2'-[1,3-propanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[phen
olato-.kappa.O]](2-)]-, (9CI) (CA INDEX NAME)



L12 ANSWER 14 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1988:456513 CAPLUS
 DN 109:56513
 TI Process for the photochemical stabilization of a fibrous polyamide material and its mixtures with other fibers
 IN Reinert, Gerhard
 PA Ciba-Geigy A.-G., Switz.
 SO Eur. Pat. Appl., 28 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 255481 | A1 | 19880203 | EP 87-810415 | 19870723 |
| | R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE | | | | |
| | US 4874391 | A | 19891017 | US 87-75805 | 19870720 |
| | DK 8703934 | A | 19880130 | DK 87-3934 | 19870728 |
| | AU 8776182 | A1 | 19880204 | AU 87-76182 | 19870728 |
| | AU 604730 | B2 | 19910103 | | |
| | BR 8703897 | A | 19880405 | BR 87-3897 | 19870728 |
| | JP 63046262 | A2 | 19880227 | JP 87-187883 | 19870729 |
| | JP 03064554 | B4 | 19911007 | | |
| PRAI | CH 86-3034 | | 19860729 | | |

OS MARPAT 109:56513

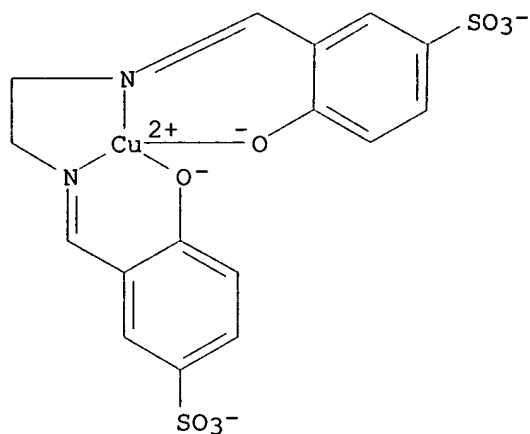
AB The lightfastness and tear strength of polyamide fibers are increased by treating them with mixts. of H₂O-sol. Cu complex dyes, light stabilizers, and, optionally, **antioxidants**. A nylon 66 fabric dyed in a bath contg. 1 g/L (NH₄)₂SO₄, 0.043% 1:2 Cr-azo dye complex, and 0.063% 1:1 Cu azo dye complex had lightfastness (DIN 75.202) 6 and tenacity and elongation after lightfastness testing (150 h) 30.5 and 45.6%, resp., vs. 6, 9.0, and 14.7, resp., when dyed with Co complex dyes only.

IT 70882-93-8 115402-47-6

RL: USES (Uses)

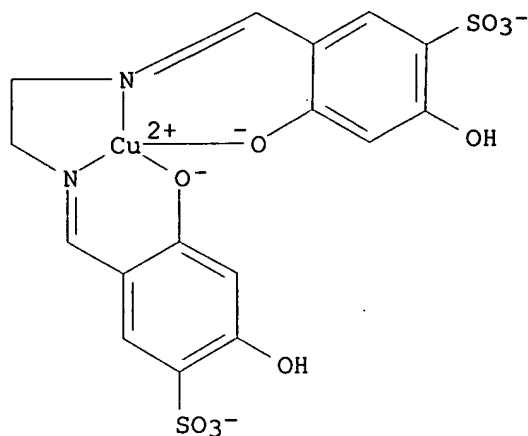
(light stabilizers, for polyamide fibers in dyeing)

IC ICM D06P003-24
 ICS D06P001-62; D06P001-64; D06P001-653; D06P001-667; D06M013-10;
 D06M013-26; D06M013-34
 CC 40-6 (Textiles and Fibers)
 Section cross-reference(s): 41
 IT 117-99-7D, 2-Hydroxybenzophenone, derivs. 14363-26-9 20170-32-5D,
 esters with polyols 52829-07-9, Bis(2,2,6,6-tetramethyl-4-
 piperidiny)sebacate 59261-49-3 66165-37-5 70882-93-8
 92484-54-3 101196-79-6 103193-42-6 115402-47-6
 RL: USES (Uses)
 (light stabilizers, for polyamide fibers in dyeing)
 IT 70882-93-8 115402-47-6
 RL: USES (Uses)
 (light stabilizers, for polyamide fibers in dyeing)
 RN 70882-93-8 CAPLUS
 CN Cuprate(2-), [[3,3'-(1,2-ethanediylbis(nitrilomethylidyne)]bis[4-
 hydroxybenzenesulfonato]](4-)-N3,N3',O4,O4']-, disodium, (SP-4-2)- (9CI)
 (CA INDEX NAME)



● 2 Na⁺

RN 115402-47-6 CAPLUS
 CN Cuprate(2-), [[3,3'-(1,2-ethanediylbis(nitrilomethylidyne)]bis[4,6-
 dihydroxybenzenesulfonato]](4-)-N3,N3',O4,O4']-, disodium (9CI) (CA
 INDEX NAME)



● 2 Na⁺

L12 ANSWER 15 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1988:133369 CAPLUS

DN 108:133369

TI Process for the photochemical stabilization of undyed and dyed fibrous polyamide material and its mixture with other fibers

IN Reinert, Gerhard; Burdeska, Kurt

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 49 pp.

CODEN: EPXXDW

DT Patent

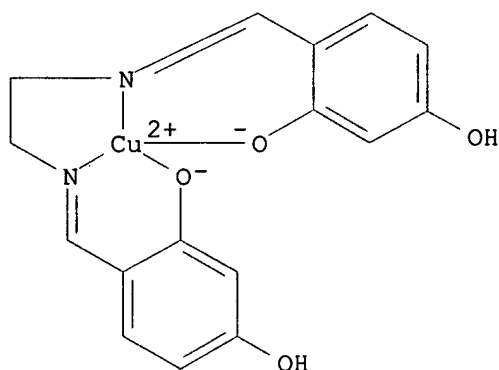
LA German

FAN.CNT 1

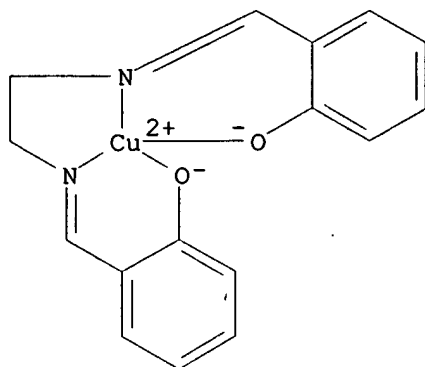
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 245204 | A1 | 19871111 | EP 87-810272 | 19870429 |
| | EP 245204 | B1 | 19930804 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, IT, LI, SE | | | | |
| | US 4775386 | A | 19881004 | US 87-42771 | 19870427 |
| | AT 92552 | E | 19930815 | AT 87-810272 | 19870429 |
| | ES 2058136 | T3 | 19941101 | ES 87-810272 | 19870429 |
| | AU 8772472 | A1 | 19871112 | AU 87-72472 | 19870504 |
| | AU 599649 | B2 | 19900726 | | |
| | ZA 8703171 | A | 19871230 | ZA 87-3171 | 19870504 |
| | BR 8702227 | A | 19880217 | BR 87-2227 | 19870504 |
| | JP 62267367 | A2 | 19871120 | JP 87-110405 | 19870506 |
| | JP 04011589 | B4 | 19920228 | | |
| PRAI | CH 86-1826 | | 19860505 | | |
| | CH 86-5057 | | 19861218 | | |
| | EP 87-810272 | | 19870429 | | |

AB In the title process, giving improved fastness and tenacity, the fibers are treated with mixts. of org. Cu complexes, light stabilizers, and optionally **antioxidants**. Nylon 66 staple yarn dyed olive-green in a dyebath contg. 0.04% (based on yarn) 1:1 Cu complex with the 2:1

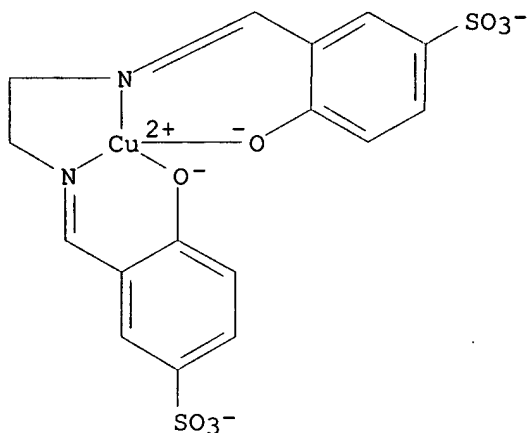
imine of salicylaldehyde with ethylenediamine and 1%
 2-benzotriazol-2-yl-4-
 methylphenol had Xenotest lightfastness (Swiss std. SN-ISO 105-B02) 7 and
 tenacity retention 71.2 and elongation retention 61.3% after 750 h
 Xenotest exposure; vs. 7, 64.5, and 56.7, resp., without the chelate,
 6-7,
 69.4, and 64.2, resp., without the phenol, and 6-7, 49.7, and 51.2,
 resp.,
 with neither.
 IT 13928-30-8 14167-15-8 70882-93-8
 RL: USES (Uses)
 (light stabilizers, for dyed and undyed polyamide fibers)
 IC ICM D06P003-24
 ICS D06P001-62; D06P001-64; D06P001-667; D06P005-02; D06M013-50;
 D06M013-34; D06M013-28; D06M013-10
 CC 40-9 (Textiles and Fibers)
 IT 2440-22-4 3121-60-6 13928-30-8 14167-15-8
 14363-26-9 23128-74-7 52829-07-9 57877-92-6 59261-49-3
 70882-93-8 92484-54-3 101196-77-4 101196-79-6 103193-42-6
 113644-20-5
 RL: USES (Uses)
 (light stabilizers, for dyed and undyed polyamide fibers)
 IT 13928-30-8 14167-15-8 70882-93-8
 RL: USES (Uses)
 (light stabilizers, for dyed and undyed polyamide fibers)
 RN 13928-30-8 CAPLUS
 CN Copper, [[4,4'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[1,3-
 benzenediolato-.kappa.O3]](2-)]- (9CI) (CA INDEX NAME)



RN 14167-15-8 CAPLUS
 CN Copper,
 [[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno-
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 70882-93-8 CAPLUS
 CN Cuprate(2-), [[3,3'-[1,2-ethanedithiolate]bis[4-hydroxybenzenesulfonate]](4-)-N3,N3',O4,O4']-, disodium, (SP-4-2)- (9CI)
 (CA INDEX NAME)



● 2 Na⁺

L12 ANSWER 16 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1987:83273 CAPLUS
 DN 106:83273
 TI **Antioxidants** for foods in refrigerators.
 IN Fujita, Yuko
 PA Japan Storage Battery Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 3 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI JP 61209041 A2 19860917 JP 85-49747 19850312

AB Bis(salicylaldehydo)ethylenediimine cobalt (II) or its deriv. is placed and sealed in a porous polytetrafluoroethylene bag for use as an **antioxidant** for foods in refrigerators. Thus, 2 g granules bis(salicylaldehydo)ethylenediamine cobalt (II) was sealed in a polytetrafluoroethylene bag (40% porosity, 0.1 mm thick) to obtain an **antioxidant** for the foods. For regeneration, the used bag was soaked in 60-100.degree. water or heated with a high frequency-induced elec. heater to remove O.

IT **14167-18-1**
 RL: BIOL (Biological study)
 (antioxidant, polytetrafluoroethylene bags contg., for foods in refrigeration)

IC ICM B01J020-34
 ICS B01D053-14

CC 17-6 (Food and Feed Chemistry)

ST **antioxidant** bissalicylaldehydoethylenediimine cobalt food

IT Food
 (antioxidants for refrigerated, bis(salicylaldehydo)ethylenediimine cobalt in polytetrafluoroethylene bags as)

IT Refrigerating apparatus
 (bis(salicylaldehydo)ethylenediimine cobalt in polytetrafluoroethylene bags as **antioxidant** for foods in)

IT **Antioxidants**
 (for foods, bis(salicylaldehydo)ethylenediimine cobalt in polytetrafluoroethylene bags as)

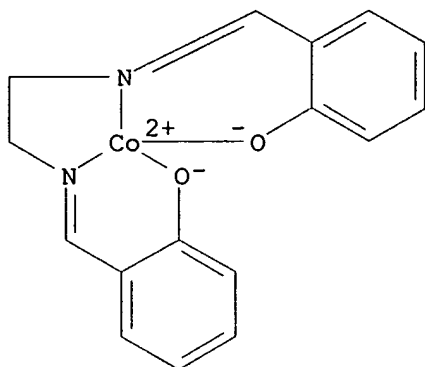
IT **14167-18-1**
 RL: BIOL (Biological study)
 (antioxidant, polytetrafluoroethylene bags contg., for foods in refrigeration)

IT 9002-84-0
 RL: BIOL (Biological study)
 (bags, bis(salicylaldehydo)ethylenediimine cobalt in, as **antioxidant** for food in refrigeration)

IT **14167-18-1**
 RL: BIOL (Biological study)
 (antioxidant, polytetrafluoroethylene bags contg., for foods in refrigeration)

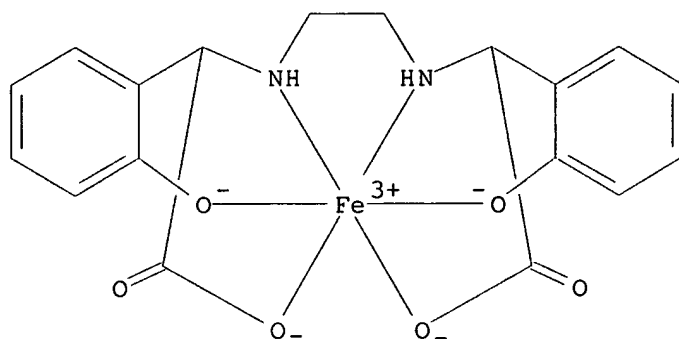
RN 14167-18-1 CAPLUS

CN Cobalt,
 [[2,2'-(1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-4-2)-(9CI) (CA INDEX NAME)



- L12 ANSWER 17 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1987:83108 CAPLUS
 DN 106:83108
 TI Role of alpha-tocopherol, ascorbic acid, citric acid and EDTA as oxidants in model systems
 AU Mahoney, John R., Jr.; Graf, Ernst
 CS Dep. Surg., Univ. Minnesota, Minneapolis, MN, 55455, USA
 SO J. Food Sci. (1986), 51(5), 1293-6
 CODEN: JFDSA; ISSN: 0022-1147
 DT Journal
 LA English
 AB The effects of 4 widely employed **antioxidants** on Fe mediated hydroxyl radical formation and lipid peroxidn. were studied in aq. model systems. Fe and Cu served as catalysts for the reactions that oxidized ascorbic acid [50-81-7] and .alpha.-tocopherol [59-02-9] and reduced O. Fe2+ spontaneously reduced O to O2- (superoxide anion radical) which led to .bul.OH (hydroxyl radical) and H2O2 generation and lipid peroxidn. Pptn. or sequestration of Fe greatly depressed these oxidative events. Complexation by EDTA [60-00-4] and citric acid [77-92-9], however, formed catalytically active Fe chelates. The concomitant increase in Fe soly. explained the substantial enhancement of Fe-driven redox reactions by EDTA and citric acid.
 IT **19441-99-7**
 RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
 (oxidn. catalyst activity of, for ascorbic acid and lipids in food ° models)
 CC 17-2 (Food and Feed Chemistry)
 ST prooxidant lipid copper; **antioxidant** iron lipid peroxidn; tocopherol iron lipid oxidn; ascorbate iron lipid oxidn; EDTA iron lipid oxidn; citrate iron lipid oxidn
 IT Food
 (antioxidants for, prooxidative effects of, in models)
 IT **Antioxidants**
 (prooxidative effects of, in food models)
 IT 3269-25-8 7439-89-6D, dildhydroxybenzoate complexes 12706-08-0, Iron (III) EGTA 14836-73-8 15275-07-7, Iron (III) EDTA 16448-54-7
19441-99-7 20438-93-1 23383-11-1 23567-85-3 27138-57-4D, iron complexes 30492-15-0 47379-04-4 51595-41-6
 RL: BAC (Biological activity or effector, except adverse); BIOL

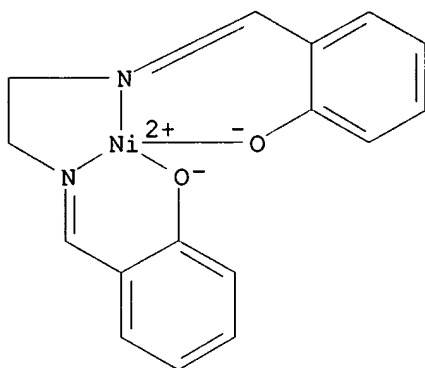
(Biological study)
 (oxidn. catalyst activity of, for ascorbic acid and lipids in food models)
 IT 19441-99-7
 RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
 (oxidn. catalyst activity of, for ascorbic acid and lipids in food models)
 RN 19441-99-7 CAPLUS
 CN Ferrate(1-), [[.alpha.,.alpha.'-(1,2-ethanediyldiimino)bis[2-hydroxybenzeneacetato]](4-)]-, hydrogen (9CI) (CA INDEX NAME)



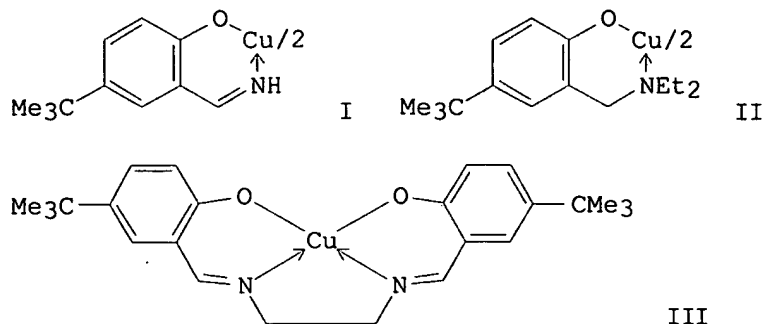
● H⁺

L12 ANSWER 18 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1986:496860 CAPLUS
 DN 105:96860
 TI Catalysis of chain termination of oxidation of dialkyl sulfides by transition metal complexes
 AU Kovtun, G. A.; Lysenko, D. L.; Larin, G. M.; Rotov, A. V.; Moiseev, I. I.
 CS USSR
 SO Dokl. Akad. Nauk SSSR (1986), 287(6), 1418-21 [Phys. Chem.]
 CODEN: DANKAS; ISSN: 0002-3264
 DT Journal
 LA Russian
 AB Bis(salicylideneanilinato)copper (I) and bis(salicylidene-p-anisidinato)cobalt inhibited Pr₂S oxidn. by catalyzing chain termination. Both the oxidized and reduced forms of Cu participated in the inhibition process in the case of I.
 IT 14167-20-5
 RL: PRP (Properties)
 (attempted inhibition by, of Pr sulfide oxidn.)
 CC 22-7 (Physical Organic Chemistry)
 ST antioxidant propyl sulfide metal complex; copper complex
 antioxidant propyl sulfide; cobalt complex antioxidant
 propyl sulfide
 IT Antioxidants
 (transition metal complexes, for Pr sulfide)

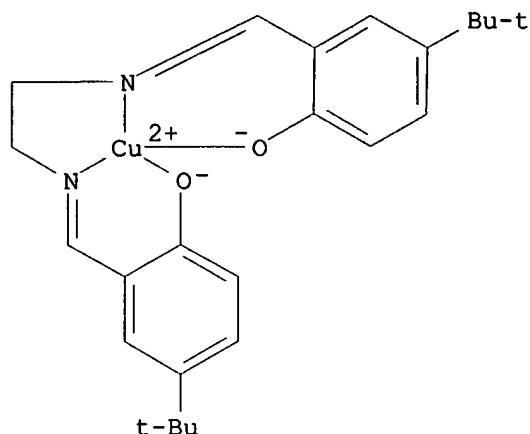
IT 14363-27-0 14566-16-6
 RL: PRP (Properties)
 (antioxidant, for Pr sulfide)
 IT 122-39-4, uses and miscellaneous 732-26-3
 RL: USES (Uses)
 (antioxidant, for Pr sulfide)
 IT 14167-20-5
 RL: PRP (Properties)
 (attempted inhibition by, of Pr sulfide oxidn.)
 IT 14167-20-5
 RL: PRP (Properties)
 (attempted inhibition by, of Pr sulfide oxidn.)
 RN 14167-20-5 CAPLUS
 CN Nickel,
 [[2,2'-(1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 19 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1982:180465 CAPLUS
 DN 96:180465
 TI Mechanism of inhibition of oxidation reactions by metal complexes. 7.
 Chain termination by copper complexes with the participation of alkyl and
 peroxy radicals
 AU Kovtun, G. A.; Moiseev, I. I.
 CS Inst. Obshch. Neorg. Khim., Moscow, USSR
 SO Izv. Akad. Nauk SSSR, Ser. Khim. (1982), (2), 260-5
 CODEN: IASKA6; ISSN: 0002-3353
 DT Journal
 LA Russian
 GI



- AB Kinetic data indicated that chain termination in the oxidn. of
pentaerythritol esters of C5-C9 monocarboxylic acids in the presence of
I,
II, and III involved reactions of alkyl and peroxy radicals with the Cu
complexes.
IT 81565-93-7
RL: PRP (Properties)
(**antioxidant**, for pentaerythritol esters, mechanism of
inhibition by)
CC 22-7 (Physical Organic Chemistry)
ST pentaerythritol ester **antioxidant** copper complex; alkyl radical
reaction copper complex; peroxy radical reaction copper complex
IT **Antioxidants**
(copper complexes, for pentaerythritol esters, mechanism of inhibition
by)
IT 78885-13-9 81565-92-6 81565-93-7
RL: PRP (Properties)
(**antioxidant**, for pentaerythritol esters, mechanism of
inhibition by)
IT 81565-93-7
RL: PRP (Properties)
(**antioxidant**, for pentaerythritol esters, mechanism of
inhibition by)
RN 81565-93-7 CAPLUS
CN Copper, [[2,2'-[1,2-ethanedithiolate]bis(nitrilomethylidyne)]bis[4-(1,1-
dimethylethyl)phenolato]](2-)-N,N',O,O']- (9CI) (CA INDEX NAME)



L12 ANSWER 20 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1981:409750 CAPLUS

DN 95:9750

TI Oil for use in automobile engines and transmissions

IN Gimpirea, Marin; Herdan, Jean Michel

PA Institutul de Cercetari si Proiectari Tehnologice pentru Rafinarii si
Instalatii Petrochimice, Rom.

SO Rom., 3 pp.

CODEN: RUXXA3

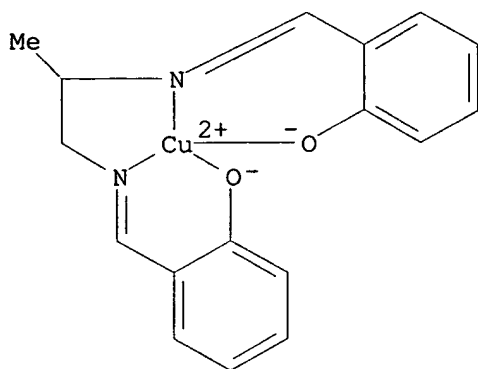
DT Patent

LA Romanian

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----|---|------|----------|-----------------|----------|
| PI | RO 67396 | B | 19790616 | RO 75-83619 | 19751016 |
| AB | Lubricating oils for automobile engines and mech. and hydraulic transmissions comprise SAE 20 base oil (contg. paraffins, naphthenes and naphthenes-paraffins), polymethacrylate (I) pour point depressant and viscosity index improver 1-4, phenyl-.beta.-naphthylamine (II) [135-88-6] antioxidant 0.1-0.5, Zn dialkyldithiocarbamate (III) antiwear additive 0.1-2.5, overbased Ca sulfonate (IV) dispersant-detergent 2-6, and P-contg. extreme-pressure additive 1.5-5, ash-free succinimide (V) dispersant-detergent 1-4, Cu 1,2-disalicylpropylene diamine (VI) [14522-52-2] corrosion inhibitor 0.01-0.1, and silicone antifoam additive 0.002%. Thus, lubricating oil (d420 0.900, viscosity at 50.degree. 52 cSt, viscosity index 115, flash point 220.degree., contg. 0.30, S 0.98, P 0.017, Zn 0.1, and N 0.087%) was obtained by blending kg SAE 20 base oil with I 3, II 0.4, III 1, IV 4, extreme-pressure additive contg. 25-30% S and 1-2% P 3, V 1, VI corrosion inhibitor 0.03, and silicone antifoam 0.002 kg for 0.5-1 h at 60-80.degree.. | | | | |
| IT | 14522-52-2 | | | | |
| RL: | USES (Uses) (lubricating oils and transmission fluids contg., for automobiles) | | | | |

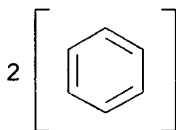
IC C10M001-001
 CC 51-7 (Fossil Fuels, Derivatives, and Related Products)
 IT 79-41-4D, esters, polymers 135-88-6 594-07-0D, dialkyl esters, zinc salts 14522-52-2
 RL: USES (Uses)
 (lubricating oils and transmission fluids contg., for automobiles)
 IT 14522-52-2
 RL: USES (Uses)
 (lubricating oils and transmission fluids contg., for automobiles)
 RN 14522-52-2 CAPLUS
 CN Copper, [[2,2'-[[[(1R)-1-methyl-1,2-ethanediyl]bis[(nitrilo-.kappa.N)methylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-4-4)- (9CI)
 (CA INDEX NAME)



L12 ANSWER 21 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1981:158081 CAPLUS
 DN 94:158081
 TI Light stabilization of thermoplastic elastomers
 AU Kovshov, Yu. S.; Moiseev, V. V.; Zharkikh, T. P.; Safonova, V. P.
 CS Voronezh. Filial, Vses. Nauchno-Issled. Inst. Sint. Kauch., Voronezh, USSR
 SO Prom-st. Sint. Kauch. (1980), (12), 17-20
 CODEN: PSKAD6
 DT Journal
 LA Russian
 AB Of the 19 **antioxidants** and light stabilizers tested with DST-30 and DMST-30 thermoplastic elastomers, 2-(2-hydroxy-5-methylphenyl)benzotriazole (Tinuvin P) (I) [2440-22-4], N,N'-bis(2,2,6,6-tetramethyl-4-piperidyl)ethylenediamine [61260-54-6], Tinuvin 328 [25973-55-1], and Ni-contg. compds., e.g., nickel stearate [2223-95-2], nickel diethyldithiocarbamate [14267-17-5], N,N'-bis(2-hydroxy-4-methoxyphenylbenzylidene)ethylenediamine nickel complex [77110-56-6], diphenylsilanediol nickel salt [77077-11-3], and oxalic acid p-methoxyanilide nickel salt [77077-12-4]. The effectiveness of I can be increased nearly 2-fold by addn. of EV-1 wax. In all cases, the Ni-contg. compds. were more effective than 2,4-dihydroxybenzophenone. Although the stabilizers increased the light resistance of the thermoplastic elastomers, the abs. light resistance of the stabilized thermoplastic elastomers remained quite low.

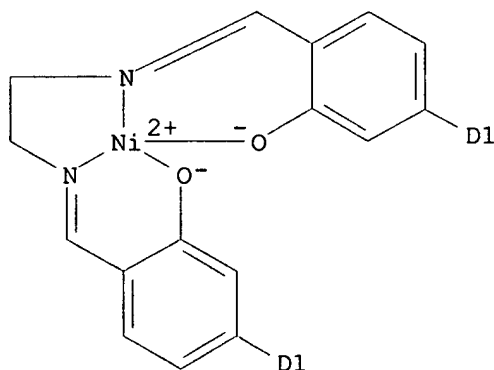
IT 77110-56-6
 RL: USES (Uses)
 (light stabilizers, for thermoplastic elastomers)
 CC 38-9 (Elastomers, Including Natural Rubber)
 IT 2223-95-2 2440-22-4 14267-17-5 25973-55-1 61260-54-6 77077-11-3
 77077-12-4 77110-56-6
 RL: USES (Uses)
 (light stabilizers, for thermoplastic elastomers)
 IT 77110-56-6
 RL: USES (Uses)
 (light stabilizers, for thermoplastic elastomers)
 RN 77110-56-6 CAPLUS
 CN Nickel, [[4,4''-[1,2-ethanediylbis(nitrilomethylidyne)]bis[ar'-methoxy[1,1'-biphenyl]-3-olato]](2-)-N4,N4'',O3,O3'']- (9CI) (CA INDEX NAME)

PAGE 1-A



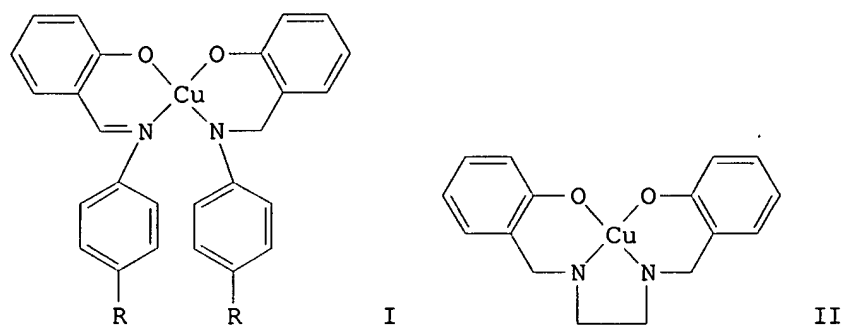
2 (D1-O-Me)

PAGE 2-A



L12 ANSWER 22 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1979:186069 CAPLUS
 DN 90:186069
 TI Mechanism of the inhibition of oxidation reactions by metal complexes.
 2.
 Effect of substituents in the imino component of a Schiff base on the
antioxidant properties of copper salicylaldehydes
 AU Kovtun, G. A.; Lysenko, D. L.; Berenblyum, A. S.; Moiseev, I. I.

CS Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, USSR
 SO Izv. Akad. Nauk SSSR, Ser. Khim. (1979), (2), 293-7
 CODEN: IASKA6; ISSN: 0002-3353
 DT Journal
 LA Russian
 GI



AB I (R = H, OH, Me, MeO, NO₂) and II participated repeatedly in chain terminations (in the oxidn. of cyclohexylamine) via reaction with .alpha.-amino peroxy radicals (III). The rate consts. of single-electron oxidn. and redn. of III decreased with increasing donor character of R. The rates of chain termination by (4-RC₆H₄)₂NH increased with increasing donor character of R.

IT 14167-15-8
 RL: USES (Uses)
 (inhibition of cyclohexylamine oxidn by, parameters of)

CC 22-5 (Physical Organic Chemistry)

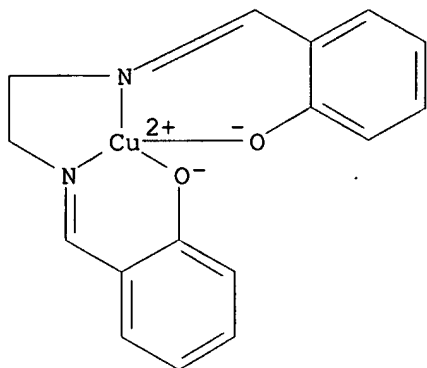
ST copper complex **antioxidant** cyclohexylamine; cyclohexylamine oxidn kinetics inhibition

IT 122-39-4, uses and miscellaneous 620-93-9 1821-27-8 6962-04-5
 14167-15-8 14363-27-0 14688-83-6 14852-50-7 14852-76-7
 15412-33-6
 RL: USES (Uses)
 (inhibition of cyclohexylamine oxidn by, parameters of)

IT 14167-15-8
 RL: USES (Uses)
 (inhibition of cyclohexylamine oxidn by, parameters of)

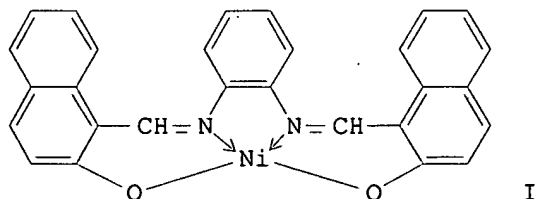
RN 14167-15-8 CAPLUS

CN Copper,
 [[2,2'-(1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 23 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1979:123051 CAPLUS
 DN 90:123051
 TI Bis(azomethine) pigments
 IN Mowat, Douglas
 PA Ciba-Geigy A.-G., Switz.
 SO Ger. Offen., 21 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------|------|----------|-----------------|----------|
| PI | DE 2823438 | A1 | 19781214 | DE 78-2823438 | 19780529 |
| | GB 1564231 | A | 19800402 | GB 77-22899 | 19770531 |
| | US 4198345 | A | 19800415 | US 78-908182 | 19780522 |
| | CA 1111436 | A1 | 19811027 | CA 78-304333 | 19780529 |
| | CH 637418 | A | 19830729 | CH 78-5841 | 19780529 |
| | JP 53149226 | A2 | 19781226 | JP 78-65625 | 19780531 |
| | FR 2393033 | A1 | 19781229 | FR 78-16214 | 19780531 |
| | FR 2393033 | B1 | 19800606 | | |
| PRAI | GB 77-22899 | | 19770531 | | |
| GI | | | | | |



AB Azomethine pigment I [20437-10-9], used for coloring coatings and polyethylene [9002-88-4] fast orange-red shades, is prepd. by reaction of 2-hydroxy-1-naphthaldehyde (II) [708-06-5] 5.45 with o-phenylenediamine [95-54-5] 3.425 in the presence of **antioxidant** Na2S2O5 5 kg and a nonionic surfactant in H2O at 20-5.degree., heating to

90.degree., adding nickel nitrate and NH4OH, heating, adding 5.5 kg II, heating at 95-100.degree., and isolating.

IT 20437-10-9
RL: USES (Uses)
(pigment, for coatings and polyethylene, prepn. of)

IC C09B055-00

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST azomethine nickel hydroxynaphthaldehyde pigment; phenylenediamine azomethine nickel pigment; **antioxidant** nickel azomethine pigment

IT 7681-57-4
RL: USES (Uses)
(**antioxidants**, in prepn. of bisazomethine pigments)

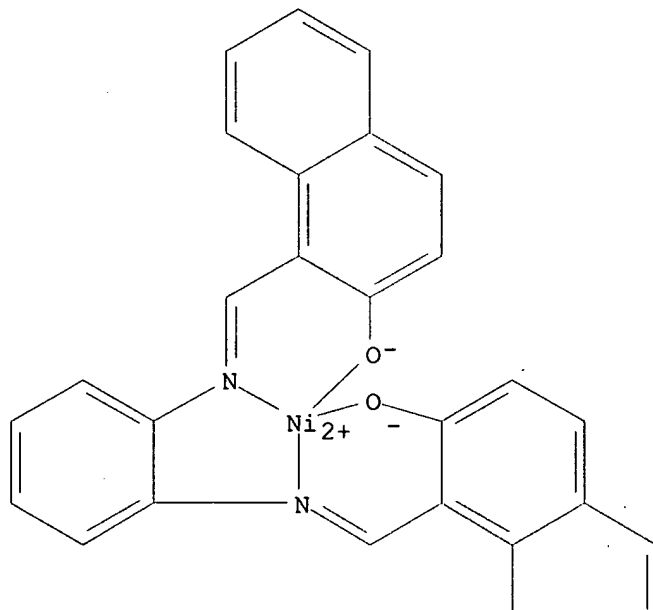
IT 20437-10-9
RL: USES (Uses)
(pigment, for coatings and polyethylene, prepn. of)

IT 20437-10-9
RL: USES (Uses)
(pigment, for coatings and polyethylene, prepn. of)

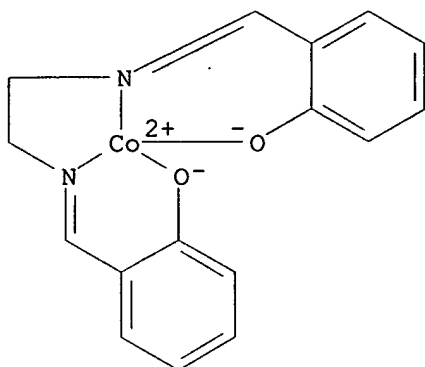
RN 20437-10-9 CAPLUS

CN Nickel, [[1,1'-[1,2-phenylenebis[(nitrilo-.kappa.N)methylidyne]]bis[2-naphthalenolato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

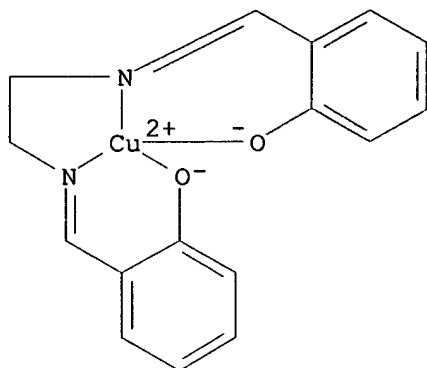
PAGE 1-A



L12 ANSWER 24 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1977:405019 CAPLUS
 DN 87:5019
 TI Inhibition of oxidative induced decomposition of (.alpha..alpha.'-diphenyl)azoethane by transition metal ions. Interactions of metal ions with .alpha.-phenylethylperoxyl radical
 AU Okuma, Kazuhiko; Niki, Etsuo; Kamiya, Yoshio
 CS Dep. React. Chem., Univ. Tokyo, Tokyo, Japan
 SO J. Chem. Soc., Perkin Trans. 2 (1977), (1), 59-64
 CODEN: JCPKBH
 DT Journal
 LA English
 AB MeCHPhN:NCHPhMe (I) decompd. >102 times as fast in the presence of O than in its absence; this oxidative-induced decompn. was suppressed by radical scavengers and transition metal ions in both lower and higher valence states. The effect of the transition metal ions was ascribed to their fast interactions with peroxy radicals and their stabilization of the latter. At lower metal concns. the induced decompn. was obsd. after a specific suppression time detd. by the ratio of concns. of I to metal ion.
 The effect of ligand and additives such as pyridine and carboxylic acids on the rate and products of the decompn. is discussed.
 IT **14167-18-1**
 RL: USES (Uses)
 (inhibitor, for oxidative decompn. of diphenylazoethane)
 CC 22-4 (Physical Organic Chemistry)
 IT **Antioxidants**
 (transition metal ions, for decompn. of diphenylazoethane)
 IT 7436-86-4 14024-48-7 14024-58-9 14033-48-8 **14167-18-1**
 14284-89-0 14325-24-7
 RL: USES (Uses)
 (inhibitor, for oxidative decompn. of diphenylazoethane)
 IT **14167-18-1**
 RL: USES (Uses)
 (inhibitor, for oxidative decompn. of diphenylazoethane)
 RN 14167-18-1 CAPLUS
 CN Cobalt,
 [[2,2'-(1,2-ethanediy)lbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 25 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1976:524904 CAPLUS
 DN 85:124904
 TI Mechanisms of inhibition against the copper-catalyzed oxidation of polyethylene: structures and catalytic reactivities of copper-inhibitor complexes
 AU Allara, D. L.; Chan, M. G.
 CS Bell Lab., Murray Hill, N. J., USA
 SO J. Polym. Sci., Polym. Chem. Ed. (1976), 14(8), 1857-76
 CODEN: JPLCAT
 DT Journal
 LA English
 AB The oxidn. rates were detd. for polyethylene [9002-88-4] contg. various copper complexes presumed to form in situ in polyethylene contg. copper salts as inhibitors of copper-catalyzed oxidn. The structure-catalytic activity correlations were studied. The complexes with neg. charged N ligands gave low reactivities; the highest reactivities were shown by Cu2O and air-exposed metallic Cu. The mechanism and kinetics of the inhibition are discussed.
 IT 14167-15-8
 RL: USES (Uses)
 (prepn. of and polyethylene oxidn. kinetics in presence of)
 CC 36-6 (Plastics Manufacture and Processing)
 IT **Antioxidants**
 (oxamides and other copper-complexing compds., for polyethylene in contact with copper)
 IT 14167-15-8 27721-61-5 60650-17-1 60749-19-1 60801-62-9
 60953-61-9 60955-16-0 60955-17-1 60955-18-2 60955-19-3
 60955-20-6
 RL: USES (Uses)
 (prepn. of and polyethylene oxidn. kinetics in presence of)
 IT 14167-15-8
 RL: USES (Uses)
 (prepn. of and polyethylene oxidn. kinetics in presence of)
 RN 14167-15-8 CAPLUS
 CN Copper,
 [[2,2'-(1,2-ethanedithiolylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-))- , (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 26 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1976:136642 CAPLUS

DN 84:136642

TI Stabilization of acrylonitrile-styrene-butadiene polymers

IN Sziburies, Ute; Schlimes, Rolf; Schroeder, Elisabeth

PA E. Ger.

SO Ger. (East), 3 pp.

CODEN: GEXXA8

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | DD 113764 | Z | 19750620 | DD 74-179985 | 19740718 |
| GI | For diagram(s), see printed CA Issue. | | | | |
| AB | The Ni complexes I (R1, R2 = alkyl, aryl or R1 + R2 = hydrocarbylene; R3, R4 = H, alkyl, aryl) are antioxidants and heat stabilizers for ABS polymer [9003-56-9]. Thus, ABS contg. 0.25% antioxidant KS and 0.20% I (R1 + R2 = o-C6H4, R3, R4 = H) [14406-71-4] has tensile strength 366, 354, 330, and 318 kg/cm ² after 0, 266, 463, and 803 hr, resp., of exposure to sunlight; compared with 366, 246, 280, and 240, resp., with a conventional stabilizer. | | | | |
| IT | 14167-20-5 14406-71-4 | | | | |
| | RL: USES (Uses) | | | | |
| | (antioxidants and heat stabilizers, for ABS) | | | | |
| IC | C08F; C08D | | | | |
| CC | 36-6 (Plastics Manufacture and Processing) | | | | |
| ST | ABS polymer stabilizer; heat stabilizer ABS; antioxidant ABS polymer; nickel complex stabilizer; salicylaldehyde imine complex nickel; phenylenediamine salicylidene complex nickel | | | | |
| IT | Antioxidants | | | | |
| | Heat stabilizers | | | | |
| | (nickel salicylideneimine complexes, for ABS) | | | | |
| IT | 9003-56-9 | | | | |
| | RL: USES (Uses) | | | | |
| | (antioxidants and heat stabilizers for, nickel complexes as) | | | | |
| IT | 14167-20-5 14406-71-4 | | | | |
| | RL: USES (Uses) | | | | |
| | (antioxidants and heat stabilizers, for ABS) | | | | |

IT 14167-20-5 14406-71-4

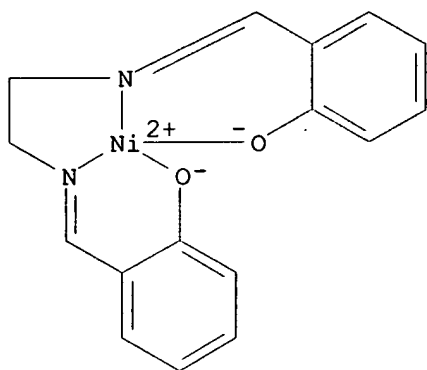
RL: USES (Uses)

(antioxidants and heat stabilizers, for ABS)

RN 14167-20-5 CAPLUS

CN Nickel,

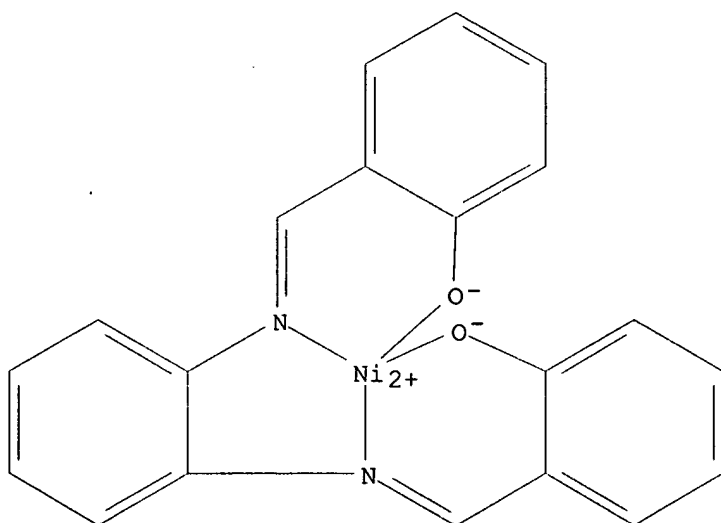
[[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 14406-71-4 CAPLUS

CN Nickel,

[[2,2'-[1,2-phenylenebis[(nitrilo-.kappa.N)methylidyne]]bis[phenol
ato-.kappa.O]](2-)]- (9CI) (CA INDEX NAME)



L12 ANSWER 27 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1975:532486 CAPLUS

DN 83:132486

TI Singlet oxygen and polymer photooxidations. II. Photodegradation of an olefinically unsaturated polymer

AU Zweig, A.; Henderson, W. A., Jr.
 CS Chem. Res. Div., Am. Cyanamid Co., Stamford, Conn., USA
 SO J. Polym. Sci., Polym. Chem. Ed. (1975), 13(4), 993-1014
 CODEN: JPLCAT
 DT Journal
 LA English
 AB Ni amino(thiobisphenolate) type chelates were quant. more effective in retarding XT 375 (acrylonitrile-1,3-butadiene-methyl methacrylate-styrene graft copolymer) [9010-94-0] photodegrdn. than were other additives with greater singlet O quenching efficiencies, uv absorption, or radical **antioxidant** properties. The Ni complexes were relatively stable under photoexposure conditions and were able to quench singlet O and precursor excited states. Fluoranthene [206-44-0] photosensitization of XT 375 was retarded by the Ni chelates.

IT 14167-20-5 42532-94-5 55911-89-2
 RL: USES (Uses)
 (antioxidant light stabilizers, for acrylic graft polymers)

CC 36-6 (Plastics Manufacture and Processing)
 ST nickel chelate light stabilizer; **antioxidant** acrylic polymer; mechanism photodegrdn acrylic polymer

IT **Antioxidants**
 (for acrylic graft polymers)

IT Ethanedithione, diphenyl-, nickel complexes
 RL: USES (Uses)
 (antioxidant light stabilizers, for acrylic graft polymers)

IT Phosphorous acid, triphenyl ester, alkylated
 RL: USES (Uses)
 (antioxidants contg., for acrylic polymers)

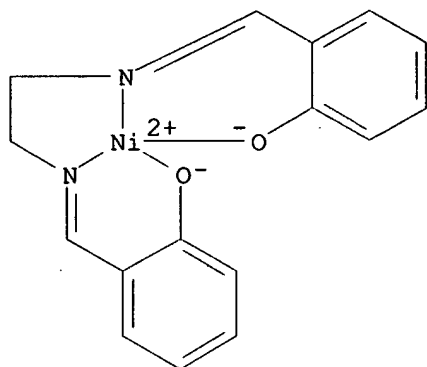
IT 13927-77-0 14167-20-5 14266-60-5 14283-99-9 14363-27-0
 14516-71-3 14568-00-4 14642-58-1 15170-64-6 15412-63-2
 15415-93-7 15550-15-9 15711-57-6 15748-52-4 16592-95-3
 19587-52-1 20649-88-1 21246-17-3 28042-64-0 29666-10-2
 37025-91-5 37981-00-3 41754-10-3 42532-94-5 42950-64-1
 42957-85-7 42957-88-0 55911-88-1 55911-89-2 55917-80-1
 55917-83-4 55917-85-6 55948-34-0 56724-26-6 56725-54-3
 56725-55-4 56725-56-5 56725-57-6 56725-58-7 56725-59-8
 RL: USES (Uses)
 (antioxidant light stabilizers, for acrylic graft polymers)

IT 56694-35-0
 RL: USES (Uses)
 (antioxidants contg., for acrylic polymers)

IT 119-47-1 2082-79-3 6683-19-8 27676-62-6
 RL: USES (Uses)
 (antioxidants, for acrylic graft polymers)

IT 14167-20-5 42532-94-5 55911-89-2
 RL: USES (Uses)
 (antioxidant light stabilizers, for acrylic graft polymers)

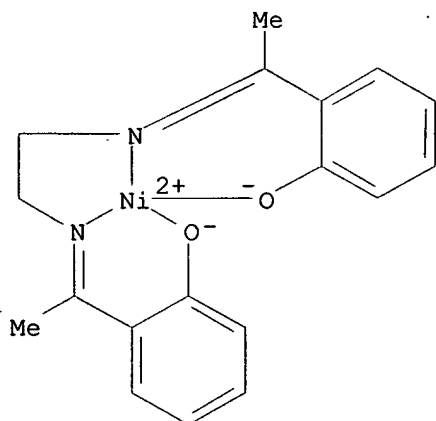
RN 14167-20-5 CAPLUS
 CN Nickel,
 [[2,2'-(1,2-ethanediyldis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 42532-94-5 CAPLUS

CN Nickel,

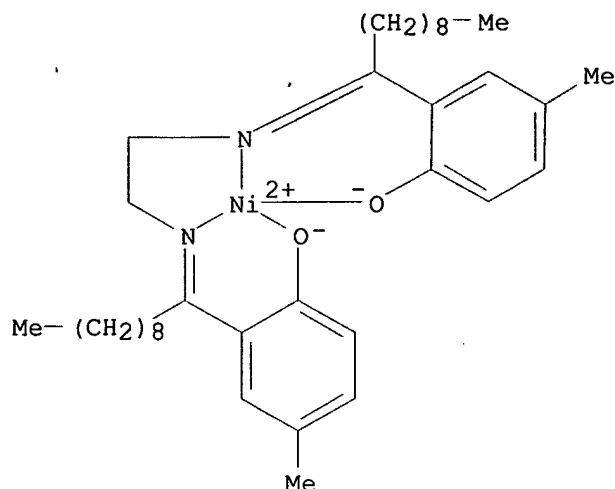
[[2,2'-[1,2-ethanedithiolate]bis[(nitrilo-.kappa.N)ethylidyne]]bis[phenolato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 55911-89-2 CAPLUS

CN Nickel,

[[2,2'-[1,2-ethanedithiolate]bis(nitrilodecylidyne)]bis[4-methylphenolato]](2-)-N,N1,O,O1]- (9CI) (CA INDEX NAME)



L12 ANSWER 28 OF 29 CAPLUS COPYRIGHT 1999 ACS

AN 1973:83595 CAPLUS

DN 78:83595

TI Autoxidation of fatty acid esters in the presence of a heavy metal catalyst Salcomine (cobalt[II] bis(salicylalethylenediimine)). I.

Effect

of catalyst upon rate of consumption of oxygen and decomposition of hydroperoxide

AU Jarvi, Pentti K.

CS Univ. Helsinki, Helsinki, Finland

SO Lipids (1972), 7(12), 755-61

CODEN: LPDSAP

DT Journal

LA English

GI For diagram(s), see printed CA Issue.

AB The autoxidn. of fatty acid esters in the presence of a heavy metal chelate, Salcomine (I) was studied. Both **antioxidative** and prooxidative effects were obsd. When the concn. of the catalyst is decreased or the temp. is increased, the induction period becomes shorter and under some conditions disappears. It was shown that the decompn. of hydroperoxides is affected by I; a first order reaction is involved with Arrhenius parameters $E = 21$ kcal, and $A = 8.99 \times 10^{10} \text{ sec}^{-1}$. The solubility of O in fatty acid esters above 30.degree., with and without

I, is the same. Theoretical aspects of the reaction mechanism, that are consistent with the exptl. results, are proposed.

IT 14167-18-1

RL: CAT (Catalyst use); USES (Uses)
(catalysts, for autoxidn. of fatty acid esters)

CC 22-5 (Physical Organic Chemistry)

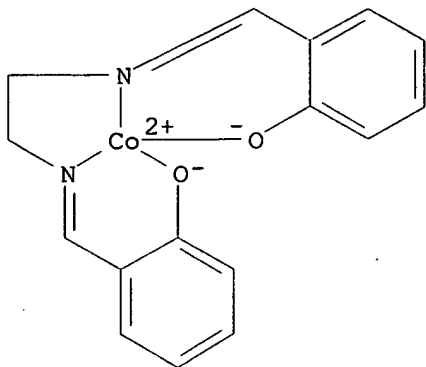
IT 14167-18-1

RL: CAT (Catalyst use); USES (Uses)
(catalysts, for autoxidn. of fatty acid esters)

IT 14167-18-1

RL: CAT (Catalyst use); USES (Uses)
(catalysts, for autoxidn. of fatty acid esters)

RN 14167-18-1 CAPLUS
 CN Cobalt,
 [[2,2'-[1,2-ethanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[pheno
 lato-.kappa.O]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



L12 ANSWER 29 OF 29 CAPLUS COPYRIGHT 1999 ACS
 AN 1972:564319 CAPLUS
 DN 77:164319
 TI Stabilization of nitrosobenzene
 IN Dodman, David; Wilkins, Malcolm; Woolley, John Mathers
 PA Imperial Chemical Industries Ltd.
 SO Ger. Offen., 6 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------|------|----------|-----------------|----------|
| PI | DE 2207493 | A | 19720907 | DE 72-2207493 | 19720217 |
| | US 3751490 | A | 19730807 | US 72-220703 | 19720125 |
| PRAI | GB 71-5095 | | 19710222 | | |

AB A 20 soln. of PhNO, useful as an intermediate in the manuf. of **antioxidants** and dyes, in PhNO₂ was stabilized by 0.25-1 salts or complexes of Co, Cu, Mn, Hg, or Ce. Thus, a 20 soln. of PhNO in Ph-NO₂ contg. 0.25 Mn acetate stored in the dark at 20-5.degree. for 7 and 34 days contained 96.2 and 90.8 of the initial PhNO, resp., vs. 81.6 and

39.6 without Mn acetate.

IT **36870-54-9**
 RL: RCT (Reactant)
 (stabilizers, for nitrosobenzene)

IC C07C
 CC 26-6 (Condensed Aromatic Compounds)
 Section cross-reference(s): 40

IT 638-38-0 1317-38-0, uses and miscellaneous 1600-27-7 7758-89-6
 14284-89-0 19475-87-7 **36870-54-9** 38845-52-2
 RL: RCT (Reactant)
 (stabilizers, for nitrosobenzene)

IT **36870-54-9**
 RL: RCT (Reactant)

(stabilizers, for nitrosobenzene)

RN 36870-54-9 CAPLUS

=> d .ca 113 1-7

L13 ANSWER 1 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1998:705968 CAPLUS

DN 129:326110

TI Synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of diseaseIN **Malfroy-Camine, Bernard; Doctrow, Susan Robin**

PA Eukarion, Inc., USA

SO U.S., 51 pp. Cont.-in-part of U.S. 5,403,834.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------------|------|----------|-----------------|----------|
| PI | <u>US 5827880</u> * | A | 19981027 | US 95-380731 | 19950126 |
| | <u>US 5403834</u> | A | 19950404 | US 92-987474 | 19921207 |
| → | CA 2150937 | AA | 19940623 | CA 93-2150937 | 19931206 |
| | HU 72967 | A2 | 19960628 | HU 95-1644 | 19931206 |
| | GB 2305107 | A1 | 19970402 | GB 96-21087 | 19931206 |
| | GB 2305107 | B2 | 19970514 | | |
| | LV 10924 | B | 19961020 | LV 95-158 | 19950606 |
| | <u>US 5696109</u> | A | 19971209 | US 95-485489 | 19950607 |
| | <u>US 5834509</u> | A | 19981110 | US 95-479697 | 19950607 |
| PRAI | US 92-987474 | | 19921207 | | |
| | WO 93-US11857 | | 19931206 | | |
| | GB 94-15050 | | 19940706 | | |
| | US 95-380731 | | 19950126 | | |

AB **Antioxidant** salen-metal complexes are provided. Salen-metal complexes having superoxide activity, catalase activity, and/or peroxidase

activity, in a form suitable for pharmaceutical administration to treat or

prevent a disease assocd. with cell or tissue damage produced by free radicals such as superoxide, and cosmetic and free radical quenching formulations of salen metal compds. are also disclosed. The in vitro superoxide dismutase and catalase activities of the various salen-Mn complexes were tested. Formulations of topical lotions contg.

salen-metal

complexes are presented.

IT 53140-26-4 53177-12-1 81065-76-1

151434-18-3 186299-34-3 186358-92-9

200485-53-6 200485-54-7 200485-55-8

200577-45-3 200577-46-4 200577-48-6

200577-49-7 200577-50-0 215112-77-9

215112-79-1 215112-83-7 215112-84-8

215112-85-9D, acylated

RL: BAC (Biological activity or effector, except adverse); BUU

(Biological

use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)

IC ICM A61K031-28
ICS C07F013-00
NCL 514492000
CC 1-12 (Pharmacology)
Section cross-reference(s): 62, 63
ST synthetic radical scavenger **antioxidant** therapy disease
IT Injury
(animal tissue; synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
IT Radicals, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(free, scavengers; synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
IT **Antioxidants**
Lotions (drug delivery systems)
Therapy
(synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
IT 53140-26-4 53177-12-1 81065-76-1
151434-18-3 186299-34-3 186358-92-9
200485-53-6 200485-54-7 200485-55-8
200577-45-3 200577-46-4 200577-48-6
200577-49-7 200577-50-0 215112-77-9
215112-79-1 215112-83-7 215112-84-8
215112-85-9D, acylated
RL: BAC (Biological activity or effector, except adverse); BUU
(Biological
use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
IT 9001-05-2, Catalase 9003-99-0, Peroxidase 9054-89-1, Superoxide
dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
L13 ANSWER 2 OF 7 CAPLUS COPYRIGHT 1999 ACS
AN 1998:53474 CAPLUS
DN 128:200984
TI Synthetic combined superoxide dismutase/catalase mimetics are protective
as a delayed treatment in a rat stroke model: a key role for reactive
oxygen species in ischemic brain injury
AU Baker, Keith; Marcus, Catherine Bucay; Huffman, Karl; Kruk, Henry;
Malfroy, Bernard; Doctrow, Susan R.
CS Eukarion, Inc., Bedford, MA, USA
SO J. Pharmacol. Exp. Ther. (1998), 284(1), 215-221
CODEN: JPETAB; ISSN: 0022-3565
PB Williams & Wilkins
DT Journal
LA English
AB Stroke is a severe and prevalent syndrome for which there is a great need
for treatment, including agents to block the cascade of brain injury that
occurs in the hours after the onset of ischemia. Reactive oxygen species
(ROS) have been implicated in this destructive process, but
antioxidant enzymes such as superoxide dismutase (SOD) have been
unsatisfactory in exptl. stroke models. This study is an evaluation of

the effectiveness of salen-manganese complexes, a class of synthetic SOD/catalase mimetics, in a rat focal ischemia model involving middle cerebral artery occlusion. The authors focus on EUK-134, a newly reported salen-manganese complex demonstrated here to have greater catalase and cytoprotective activities and equiv. SOD activity compared with the previously described prototype EUK-8. The administration of EUK-134 at 3 h after middle cerebral artery occlusion significantly reduced brain infarct size, with the highest dose apparently preventing further infarct growth. EUK-8 was also protective but substantially less effective. These findings support a key role for ROS in the cascade of brain injury after stroke, even well after the onset of ischemia. The enhanced activity of EUK-134 suggests that, in particular, hydrogen peroxide contributes significantly to this injury. Overall, this study suggests that synthetic SOD/catalase mimetics might serve as novel, multifunctional therapeutic agents for stroke.

IT 81065-76-1P, EUK 134
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (synthetic combined superoxide dismutase/catalase mimetics are protective in delayed treatment in a rat stroke model and role for reactive oxygen species in ischemic brain injury)

IT 53177-12-1, EUK-8
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (synthetic combined superoxide dismutase/catalase mimetics are protective in delayed treatment in a rat stroke model and role for reactive oxygen species in ischemic brain injury)

CC 1-12 (Pharmacology)
 Section cross-reference(s): 14

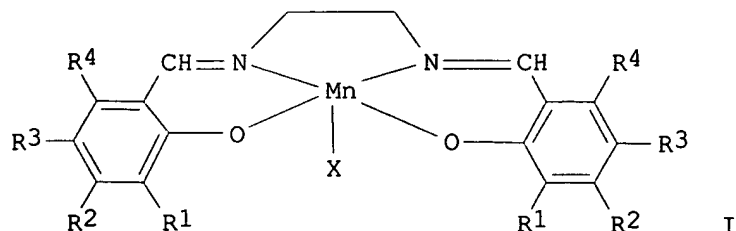
IT 81065-76-1P, EUK 134
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (synthetic combined superoxide dismutase/catalase mimetics are protective in delayed treatment in a rat stroke model and role for reactive oxygen species in ischemic brain injury)

IT 53177-12-1, EUK-8
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (synthetic combined superoxide dismutase/catalase mimetics are protective in delayed treatment in a rat stroke model and role for reactive oxygen species in ischemic brain injury)

L13 ANSWER 3 OF 7 CAPLUS COPYRIGHT 1999 ACS
 AN 1997:809718 CAPLUS
 DN 128:80026
 TI Synthetic catalytic free radical scavengers useful as antioxidants for prevention and therapy of disease
 IN Malfroy-Camine, Bernard; Doctrow, Susan Robin
 PA Eukarion, Inc., USA
 SO U.S., 62 pp. Cont.-in-part of U.S. Ser. No. 380,731.
 CODEN: USXXAM
 DT Patent
 LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 5696109 | A | 19971209 | US 95-485489 | 19950607 |
| | US 5403834 | A | 19950404 | US 92-987474 | 19921207 |
| | WO 9413300 | A1 | 19940623 | WO 93-US11857 | 19931206 |
| | W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | GB 2305107 | A1 | 19970402 | GB 96-21087 | 19931206 |
| | GB 2305107 | B2 | 19970514 | | |
| | US 5827880 | A | 19981027 | US 95-380731 | 19950126 |
| | WO 9640148 | A1 | 19961219 | WO 96-US10037 | 19960606 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| | WO 9640149 | A1 | 19961219 | WO 96-US10267 | 19960606 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| | CA 2223510 | AA | 19961219 | CA 96-2223510 | 19960606 |
| | AU 9662725 | A1 | 19961230 | AU 96-62725 | 19960606 |
| | AU 9663328 | A1 | 19961230 | AU 96-63328 | 19960606 |
| | EP 831836 | A1 | 19980401 | EP 96-922461 | 19960606 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| PRAI | US 92-987474 | | 19921207 | | |
| | WO 93-US11857 | | 19931206 | | |
| | US 95-380731 | | 19950126 | | |
| | GB 94-15050 | | 19940706 | | |
| | US 95-485489 | | 19950607 | | |
| | WO 96-US10037 | | 19960606 | | |
| | WO 96-US10267 | | 19960606 | | |
| OS | MARPAT 128:80026 | | | | |
| GI | | | | | |



AB The invention provides **antioxidant** salen-metal complexes,

compns. of such **antioxidant** salen-metal complexes having superoxide activity, catalase activity, and/or peroxidase activity, compns. of salen-metal complexes in a form suitable for pharmaceutical administration to treat a disease assocd. with cell or tissue damage produced by free radicals such as superoxide, and cosmetic and free radical quenching formulations of salen metal compds. E.g., in vitro **antioxidant** catalytic activities and pharmaceutical formulations were given for salen metal compds. such as I.

IT 27815-84-5 51436-86-3 53140-26-4
 53177-12-1 81065-76-1 101032-22-8
 135395-84-5 156467-55-9 186299-31-0
 186299-32-1 186299-33-2 186299-34-3
 186299-35-4 186299-36-5 186299-37-6
 186299-38-7 186299-39-8 186299-40-1
 186299-41-2 186299-42-3 186350-25-4
 186358-92-9 200485-52-5 200485-53-6
 200485-54-7 200485-55-8 200485-56-9
 200577-45-3 200577-46-4 200577-47-5
 200577-48-6 200577-49-7 200577-50-0
 200577-51-1 200577-52-2
 RL: BAC (Biological activity or effector, except adverse); CAT (Catalyst use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (salen manganese complexes as free radical scavenger **antioxidant** catalysts)

IC ICM A61K031-555
 ICS A61K031-28; A61K031-295

NCL 514185000

CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1

ST salen manganese complex **antioxidant** catalyst; radical scavenger
 salen manganese complex

IT **Antioxidants**
 Catalysts
 Drug delivery systems
 Radical scavengers
 (salen manganese complexes as free radical scavenger **antioxidant** catalysts)

IT 27815-84-5 51436-86-3 53140-26-4
 53177-12-1 81065-76-1 101032-22-8
 135395-84-5 156467-55-9 186299-31-0
 186299-32-1 186299-33-2 186299-34-3
 186299-35-4 186299-36-5 186299-37-6
 186299-38-7 186299-39-8 186299-40-1
 186299-41-2 186299-42-3 186350-25-4
 186358-92-9 200485-52-5 200485-53-6
 200485-54-7 200485-55-8 200485-56-9
 200577-45-3 200577-46-4 200577-47-5
 200577-48-6 200577-49-7 200577-50-0
 200577-51-1 200577-52-2
 RL: BAC (Biological activity or effector, except adverse); CAT (Catalyst use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (salen manganese complexes as free radical scavenger **antioxidant** catalysts)

AN 1997:130022 CAPLUS
 DN 126:135623
 TI Synthetic catalytic free radical scavengers useful as **antioxidants**
 for prevention and therapy of disease
 IN **Malfroy-Camine, Bernard; Doctrow, Susan Robin**
 PA Eukarion, Inc., USA; Malfroy-Camine, Bernard; Doctrow, Susan Robin
 SO PCT Int. Appl., 164 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9640149 | A1 | 19961219 | WO 96-US10267 | 19960606 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| | US 5696109 | A | 19971209 | US 95-485489 | 19950607 |
| | AU 9663328 | A1 | 19961230 | AU 96-63328 | 19960606 |
| | EP 831836 | A1 | 19980401 | EP 96-922461 | 19960606 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| PRAI | US 95-485489 | | 19950607 | | |
| | US 92-987474 | | 19921207 | | |
| | WO 93-US11857 | | 19931206 | | |
| | US 95-380731 | | 19950126 | | |
| | WO 96-US10267 | | 19960606 | | |
| OS | MARPAT 126:135623 | | | | |
| AB | The invention provides antioxidant salen-metal complexes, compns. of such antioxidant salen-metal complexes having superoxide, catalase, and/or peroxidase activities, compns. of salen-metal complexes in a form suitable for pharmaceutical administration to treat or prevent a disease assocd. with cell or tissue damage produced by free radicals such as superoxide, and cosmetic and free radical quenching formulations of salen metal compds. | | | | |
| IT | 53177-12-1 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (salen metal complexes as radical scavengers as antioxidants for prevention and therapy of disease) | | | | |
| IT | 14167-15-8 14167-20-5 22967-54-0 27815-84-5 31135-16-7 36913-44-7 38586-93-5 51436-86-3 52594-40-8 53140-26-4 81065-76-1 82405-41-2 95646-99-4 98774-89-1 99568-91-9 122706-84-7 130491-67-7 156467-55-9 186299-31-0 186299-32-1 186299-33-2 186299-34-3 186299-35-4 186299-36-5 186299-37-6 186299-38-7 186299-39-8 186299-40-1 186299-41-2 186299-42-3 186299-43-4 186299-44-5 186299-46-7 186350-25-4 186350-26-5 186350-27-6 | | | | |

186350-28-7 186350-29-8 186350-30-1
 186350-31-2 186350-32-3 186350-33-4
 186350-34-5 186350-35-6 186350-36-7
 186350-37-8 186350-38-9 186350-39-0
 186350-40-3 186350-41-4 186350-42-5
 186350-43-6 186350-44-7 186350-45-8
 186358-92-9

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (salen metal complexes as radical scavengers as **antioxidants**
 for prevention and therapy of disease)

IC ICM A61K031-555

ICS A61K031-28; A61K031-295

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

ST salen metal complex **antioxidant** therapy; radical scavenger salen
 metal complex

IT **Antioxidants**

Drug delivery systems

Radical scavengers

(salen metal complexes as radical scavengers as **antioxidants**
 for prevention and therapy of disease)

IT 9001-05-2, Catalase 9003-99-0, Peroxidase 9054-89-1, Superoxide
 dismutase

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (activity; salen metal complexes as radical scavengers as
antioxidants for prevention and therapy of disease)

IT 53177-12-1

RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (salen metal complexes as radical scavengers as **antioxidants**
 for prevention and therapy of disease)

IT 14167-15-8 14167-20-5 14167-22-7 19362-14-2

21044-46-2 21044-47-3 22967-54-0 27815-84-5

31135-16-7 35820-09-8 36913-44-7 38586-93-5

51436-86-3 52594-40-8 53140-26-4 57891-46-0

81065-76-1 82405-41-2 95646-99-4

98774-89-1 99568-91-9 122706-84-7

130491-67-7 156467-55-9 186299-31-0

186299-32-1 186299-33-2 186299-34-3

186299-35-4 186299-36-5 186299-37-6

186299-38-7 186299-39-8 186299-40-1

186299-41-2 186299-42-3 186299-43-4

186299-44-5 186299-46-7 186350-25-4

186350-26-5 186350-27-6 186350-28-7

186350-29-8 186350-30-1 186350-31-2

186350-32-3 186350-33-4 186350-34-5

186350-35-6 186350-36-7 186350-37-8

186350-38-9 186350-39-0 186350-40-3

186350-41-4 186350-42-5 186350-43-6

186350-44-7 186350-45-8 186358-92-9

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (salen metal complexes as radical scavengers as **antioxidants**
 for prevention and therapy of disease)

L13 ANSWER 5 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1997:121374 CAPLUS

DN 126:135622

TI Synthetic catalytic free radical scavengers useful as **antioxidants**
for prevention and therapy of disease
IN **Malfroy-Camine, Bernard; Doctrow, Susan Robin**
PA Eukarion, Inc., USA; Malfroy-Camine, Bernard; Doctrow, Susan Robin
SO PCT Int. Appl., 131 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9640148 | A1 | 19961219 | WO 96-US10037 | 19960606 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| | US 5696109 | A | 19971209 | US 95-485489 | 19950607 |
| | AU 9662725 | A1 | 19961230 | AU 96-62725 | 19960606 |
| PRAI | US 95-485489 | | 19950607 | | |
| | US 92-987474 | | 19921207 | | |
| | WO 93-US11857 | | 19931206 | | |
| | US 95-380731 | | 19950126 | | |
| | WO 96-US10037 | | 19960606 | | |
| OS | MARPAT 126:135622 | | | | |
| AB | The invention provides antioxidant salen-metal complexes, compns. of such antioxidant salen-metal complexes having superoxide activity, catalase activity, and/or peroxidase activity, compns. of salen-metal complexes in a form suitable for pharmaceutical administration to treat or prevent a disease assocd. with cell or tissue damage produced by free radicals such as superoxide, and cosmetic and free radical quenching formulations of salen metal compds. | | | | |
| IT | 53177-12-1 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (salen-metal complexes as catalytic free radical scavengers useful as antioxidants for prevention and therapy of disease) | | | | |
| IT | 27815-84-5 51436-86-3 53140-26-4 81065-76-1 156467-55-9 186299-31-0 186299-32-1 186299-33-2 186299-34-3 186299-35-4 186299-36-5 186299-37-6 186299-38-7 186299-39-8 186299-40-1 186299-41-2 186299-42-3 186299-43-4 186299-44-5 186299-45-6 186299-46-7 186358-92-9 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (salen-metal complexes as catalytic free radical scavengers useful as antioxidants for prevention and therapy of disease) | | | | |
| IC | ICM A61K031-555 ICS A61K031-28; A61K031-295 | | | | |
| CC | 63-6 (Pharmaceuticals) Section cross-reference(s): 1, 62 | | | | |
| ST | salen metal complex radical scavenger antioxidant | | | | |
| IT | Antioxidants Cosmetics | | | | |

- Radical scavengers
(salen-metal complexes as catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
- IT 53177-12-1
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(salen-metal complexes as catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
- IT 9001-05-2, Catalase 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(salen-metal complexes as catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
- IT 27815-84-5 51436-86-3 53140-26-4
81065-76-1 156467-55-9 186299-31-0
186299-32-1 186299-33-2 186299-34-3
186299-35-4 186299-36-5 186299-37-6
186299-38-7 186299-39-8 186299-40-1
186299-41-2 186299-42-3 186299-43-4
186299-44-5 186299-45-6 186299-46-7
186358-92-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(salen-metal complexes as catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease)
- L13 ANSWER 6 OF 7 CAPLUS COPYRIGHT 1999 ACS
AN 1997:28266 CAPLUS
DN 126:69571
TI Salen-manganese complexes: combined superoxide dismutase/catalase mimics with broad pharmacological efficacy
AU Doctrow, Susan R.; Huffman, Karl; Marcus, Catherine B.; Musleh, Wael; Bruce, Annadora; Baudry, Michel; Malfroy, Bernard
CS Eukarion, Inc., Bedford, MA, 01730, USA
SO Adv. Pharmacol. (San Diego) (1997), 38(Antioxidants in Disease Mechanisms and Therapy), 247-269
CODEN: ADPHEL; ISSN: 1054-3589
PB Academic
DT Journal; General Review
LA English
AB A review with many refs. The authors describe the catalytic properties of
of
EUK-8, a prototype salen-manganese complex and illustrate its efficacy in exptl. models of disease. Future direction in the development of salen-manganese complexes as novel, broadly applicable potential therapeutic agents. Salen-manganese complexes have several characteristics that might facilitate their potential usefulness as therapeutic agents. First, as low mol. wt., synthetic mols. rather than proteinaceous **antioxidant** enzymes, they have potential advantages. Second, they activity catalytically, presumably enhancing their over noncatalytic low-mol. wt. ROS scavenger such as vitamin E. Third, their ability to destroy both superoxide anion and hydrogen peroxide should enhance their protective potential in various disease states involving the prodn. of multiple ROS species.
- IT 53177-12-1, EUK-8
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(salen-manganese complexes as combined superoxide dismutase/catalase mimics with broad pharmacol. **antioxidant** efficacy)

CC 1-0 (Pharmacology)
 ST review salen manganese complex **antioxidant**; EUK8 salen manganese complex **antioxidant** review
 IT **Antioxidants** (pharmaceutical)
 (salen-manganese complexes as combined superoxide dismutase/catalase mimics with broad pharmacol. **antioxidant** efficacy)
 IT 94-93-9D, Salen, manganese complexes 7439-96-5D, Manganese, salen complexes 53177-12-1, EUK-8
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (salen-manganese complexes as combined superoxide dismutase/catalase mimics with broad pharmacol. **antioxidant** efficacy)

L13 ANSWER 7 OF 7 CAPLUS COPYRIGHT 1999 ACS

AN 1994:570581 CAPLUS

DN 121:170581

TI Synthetic catalytic free radical scavengers useful as **antioxidants** for prevention and therapy of disease

IN **Malfroy-Camine, bernard**; Baudry, Michel

PA Eukarion, Inc., USA

SO PCT Int. Appl., 86 pp.

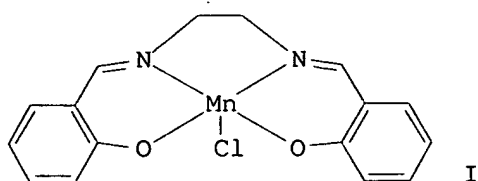
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9413300 | A1 | 19940623 | WO 93-US11857 | 19931206 |
| | W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | <u>US 5403834</u> | A | 19950404 | US 92-987474 | 19921207 |
| | CA 2150937 | AA | 19940623 | CA 93-2150937 | 19931206 |
| | AU 9457419 | A1 | 19940704 | AU 94-57419 | 19931206 |
| | AU 697399 | B2 | 19981008 | | |
| | JP 08504211 | T2 | 19960507 | JP 93-514328 | 19931206 |
| | HU 72967 | A2 | 19960628 | HU 95-1644 | 19931206 |
| | EP 746321 | A1 | 19961211 | EP 94-903498 | 19931206 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, | | | | |
| SE | GB 2305107 | A1 | 19970402 | GB 96-21087 | 19931206 |
| | GB 2305107 | B2 | 19970514 | | |
| | PL 175446 | B1 | 19981231 | PL 93-309334 | 19931206 |
| | GB 2277873 | A1 | 19941116 | GB 94-15050 | 19940726 |
| | GB 2277873 | B2 | 19970514 | | |
| | NO 9502237 | A | 19950801 | NO 95-2237 | 19950606 |
| | LV 10924 | B | 19961020 | LV 95-158 | 19950606 |
| | <u>US 5696109</u> | A | 19971209 | US 95-485489 | 19950607 |
| | <u>US 5834509</u> | A | 19981110 | US 95-479697 | 19950607 |
| PRAI | US 92-987474 | | 19921207 | | |
| | WO 93-US11857 | | 19931206 | | |
| | GB 94-15050 | | 19940706 | | |
| | US 95-380731 | | 19950126 | | |
| OS | MARPAT 121:170581 | | | | |
| GI | | | | | |



- AB The invention provides **antioxidant** salen-metal complexes in a form suitable for pharmaceutical administration to treat or prevent a disease assocd. with cell or tissue damage produced by free radicals such as superoxide. A particularly effective compd. is I.
- IT 53177-12-1 149580-33-6 149656-59-7
 149656-62-2 149656-63-3 149656-64-4
 149656-65-5 157076-03-4 157106-73-5
 157106-73-5D, amino derivs 157698-76-5
 157698-77-6 157698-78-7D, acyl derivs.
 157698-79-8
 RL: BIOL (Biological study)
 (free radical scavenger as **antioxidant** for disease prevention and therapy)
- IC ICM A61K031-555
- CC 1-12 (Pharmacology)
- ST **antioxidant** radical scavenger salen metal complex
- IT **Antioxidants**
 (salen metal complexes, as free radical scavengers, for disease prevention and therapy)
- IT Radicals, biological studies
 RL: BIOL (Biological study)
 (scavengers for, salen metal complexes as **antioxidant**, for disease prevention and therapy)
- IT 53177-12-1 149580-33-6 149656-59-7
 149656-62-2 149656-63-3 149656-64-4
 149656-65-5 157076-00-1 157076-01-2 157076-02-3
 157076-03-4 157106-72-4 157106-73-5
 157106-73-5D, amino derivs 157698-76-5
 157698-77-6 157698-78-7D, acyl derivs.
 157698-79-8
 RL: BIOL (Biological study)
 (free radical scavenger as **antioxidant** for disease prevention and therapy)
- IT 11062-77-4, Superoxide
 RL: BIOL (Biological study)
 (scavengers for, salen metal complexes as **antioxidant**, for disease prevention and therapy)